

# OPI

Offshore | Petroleum | Industrial | Innovation

# RIGGING EQUIPMENTS

## STAINLESS STEEL



[www.aires.co.th](http://www.aires.co.th)



[www.ariss.com](http://www.ariss.com)

LIFTING EQUIPMENTS  
SLINGS AND STRAPS  
HOOKS | SHACKLES & ATTACHMENTS  
RIGGING HARDWARES  
CHAINS

## QUALITY POLICY

ARC shall do our best to source and provide high quality and trusted Materials, Solution and Services in Engineering, Industrial and Technology field to fulfill Customer Needs and Expectations.

### We are continuously

- Improving products and services quality
- Creating sustainable organization growth
- Building up knowledge and skill in all levels staff
- Creating team cooperation for continuous improvement and meet highest Customer Satisfaction.



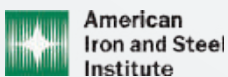
ISO 9001 : 2015  
REGISTRATION NO.  
**IC-QM-2302139**

### ISO 9001 : 2015

ISO 9001 is a quality management system according to international standards. The key idea of ISO 9001 is to establish a management system for quality assurance which is a system that ensures various processes are controlled and traceable. Through a system that specifies procedures and work methods to ensure that personnel in the organization know their duties, responsibilities and procedures in work. There must be training to provide knowledges and skills in performing the job. Data is recorded Including checking whether work operations are as specified in the system or not. Errors are corrected and there are guidelines to prevent repetitive errors.

The ISO 9001:2015 standard adds requirements for understanding the organization and its context. Understanding stakeholder needs and expectations for action on risks, opportunities and other requirements. This is one basis that will help the organization continue moving towards sustainable development.

In addition, OPI' s products have been supplied according to below national standard as well.





**CERTIFICATE OF REGISTRATION**

INTERCERT hereby certifies that the Quality Management System of

**Aires Company Limited**



14 Soi Krungthep Kritha 37 Yaek 1, Khwaeng Thap Chang, Khet Saphan Sung, Bangkok, Thailand 10250

Has been successfully assessed as per the requirements of

**ISO 9001:2015**

For the scope of

Sourcing and Supply Goods and Services for Equipments and Tools (Civil Engineering, Mechanical Engineering, Electrical Engineering, Industrial and Factory products and Safety Devices).

Initial Certification Date : February 25, 2023  
 Certificate Issue Date : February 12, 2024 Rev.1  
 Surveillance Validity Date : February 24, 2025  
 Recertification Date : February 24, 2026

Registration Number: IC-QM-2302139

Issued on behalf of InterCert  
 Head - Certifications



The validity of this certificate can be verified at [www.intercert.com](http://www.intercert.com) or through email at [info@intercert.com](mailto:info@intercert.com). This certificate is the property of INTERCERT INC, 2001 Timberloch Place - Suite 500, The Woodlands, Texas 77380, United States and must be returned on request.



# **RIGGING**

## **EQUIPMENTS**

**HIGH CORROSION RESIST  
MATERIALS**

**STOCK READY**



Discover top-notch rigging gear perfectly crafted for the challenges of many kind of industrial works. Our rigging equipments are your guide to robust, safe, and precise lifting operations. They are robust designed for the tough demands of offshore tasks and the heavy-duty needs of Oil & Gas / Petroleum & Industrial settings. It's all about heavy-duty hoists, smart slings, robust chains and specialized attachments that promise not just strength but also resilience. Apart from above, Stainless Steel serie is available for rust proof, chemical and salt sea water resists.

## LIFTING EQUIPMENTS



### HOISTS, CHAIN BLOCKS, LEVER BLOCK

Mechanical devices used for lifting or lowering heavy loads. Electric, hydraulic and manual hoists are common types.



### CRANES , TROLLEY HOISTS

Large machines equipped with a hoisting mechanism often used for lifting and moving heavy loads over short distances.



### RATCHET

- Lashing webbing are produced from 100% high tenacity polyester yarns.
- Metal components are selected to suit lashing & webbing to meet international standard.
- Indicated standard DIN V61360 shows at blue label.
- Length is according to requirement.

**MERTRA**<sup>®</sup>  
HIGH TENACITY POLYESTER FOR BETTER LIFTING



# SLINGS AND STRAPS



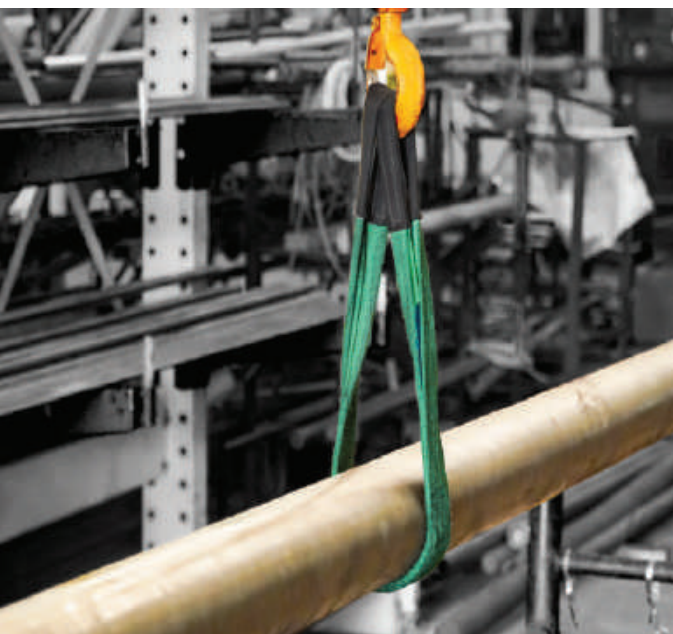
## WIRE ROPES

Made of steel cables and use for lifting heavy loads.



## CHAINS

Made of Steel and Stainless Steel for Transmitting power in machines, lifting heavy loads, securing valuables, timing engine components, moving materials in manufacturing. Suitable for various industries and applications.



## WEB SLINGS

Made of synthetic materials like nylon or polyester, suitable for various lifting applications.



## HOOKS | SHACKLES & ATTACHMENTS



### HOOKS

Use to attach the load to the lifting equipment.



### SHACKLES

U-shaped metal components use for connecting slings and other rigging components.



### THIMBLES, SWIVELS AND LINKS

Provide additional flexibility and rotational movement.



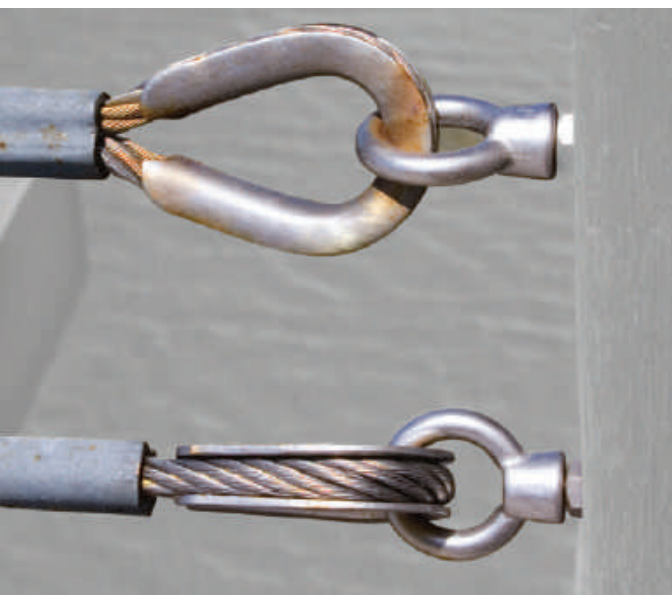
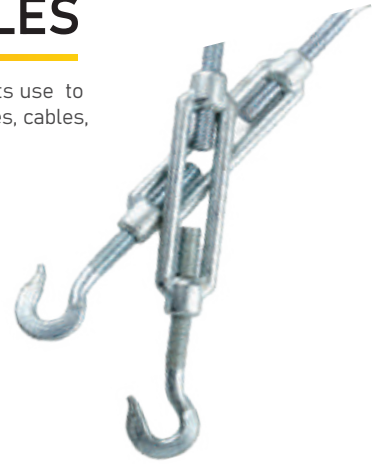


# RIGGING HARDWARES



## TURNBUCKLES

Adjustable rigging components use to tighten or loosen slack in ropes, cables, or tie rods.



## EYEBOLTS & EYENUTS

Bolts or nuts with a looped head for attachment points.

EYEBOLTS

EYENUTS



SELF COLOR

GALVANIZED



SELF COLOR

GALVANIZED



## WIRE ROPE CLIPS

Use to form a loop or fasten the loose end of a wire rope.



SELF COLOR

GALVANIZED

## CHAINS



### ● Available

**Grade 30 Chain (Proof Coil Chain) Sizes : 5.5 mm. - 16 mm.**

**Grade 30 Chain is made from low carbon steel.**

This chain is designed to use such applications as guard rails, tie down, load binding, logging, industrial uses and general purposes other than overhead lifting. This chain was tested proof loads with Open Crosshead Computer Servo Hydraulic Universal Testing Machine and was tested hardness with Digital Rockwell Type Hardness Tester.

Grade 30 Chain is manufactured to meet American Standard of testing Material ASTM A413 / A413M Specification.

Available Surfaces :

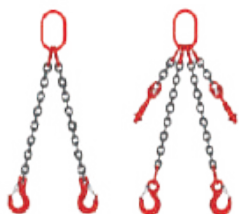
- Self colored
- Bright Polished
- Zinc Plated
- Powder Coated
- Black Oxide Coated
- Hot-Dip Galvanized

Single Leg Sling



Chain Size (mm.)	W.L.L. in tonne	
	Straight	
6	1.12	
7	1.50	
8	2.00	
10	3.15	
13	5.30	
16	8.00	
18	10.00	
20	12.50	
22	15.00	
26	21.20	
32	31.50	

2 Leg Sling



Chain Size (mm.)	W.L.L. in tonne	
	0 - 45°	45° - 60°
6	1.4	1
6	1.50	1.12
7	2.12	1.50
8	2.80	2.00
10	4.25	3.15
13	7.50	5.30
16	11.20	8.00
18	16.00	10.00
20	17.00	12.50
22	21.20	16.00
26	30.00	21.20
32	45.00	31.50

3 - 4 Leg Sling



Chain Size (mm.)	W.L.L. in tonne	
	0 - 45°	45° - 60°
6	2.1	1.5
6	2.36	1.70
7	3.15	2.24
8	4.25	3.00
10	6.70	4.75
13	11.20	8.00
16	17.00	11.50
18	23.60	17.00
20	26.50	19.00
22	31.50	22.40
26	45.00	34.50
32	57.00	47.50





**STAINLESS  
STEEL  
RIGGINGS**

# STAINLESS STEEL RIGGING



Stainless steel is an essence in the language of contemporary design. Through its structural resistance and aesthetic beauty, stainless steel speaks with unsurpassed confidence to its surrounding. At OPI, we speak the language of stainless steel, combining, casting and machining of different grades of stainless steel. We have provided a secure platform for many sectors of industry for over three decades. Striving in working ever more closely with our market, we spirit ourselves in challenging new production and design limits.

## Material composition (AISI standards)

	C%	Cr%	Mo%	Ni%
Standard material 304 of Casting (CF-8)	≤0.08	18.00-21.00	-	8.00-11.00
Standard material 304 of Non-Casting (304)	≤0.08	18.00-20.00	-	8.00-11.00
Standard material 316 of Casting (CF-8M)	≤0.08	18.00-21.00	2.00-3.00	9.00-12.00
Standard material 316 of Non-Casting (316)	≤0.08	16.00-18.00	2.00-3.00	10.00-14.00

Note : All casting sections of this catalog have been examined with spectra analysis for their chemical compositions and tested under internal lab settings of temperature 25 °C ±3 °C, humidity 45% ±10% . Non-casting sections are certified by their respective suppliers.

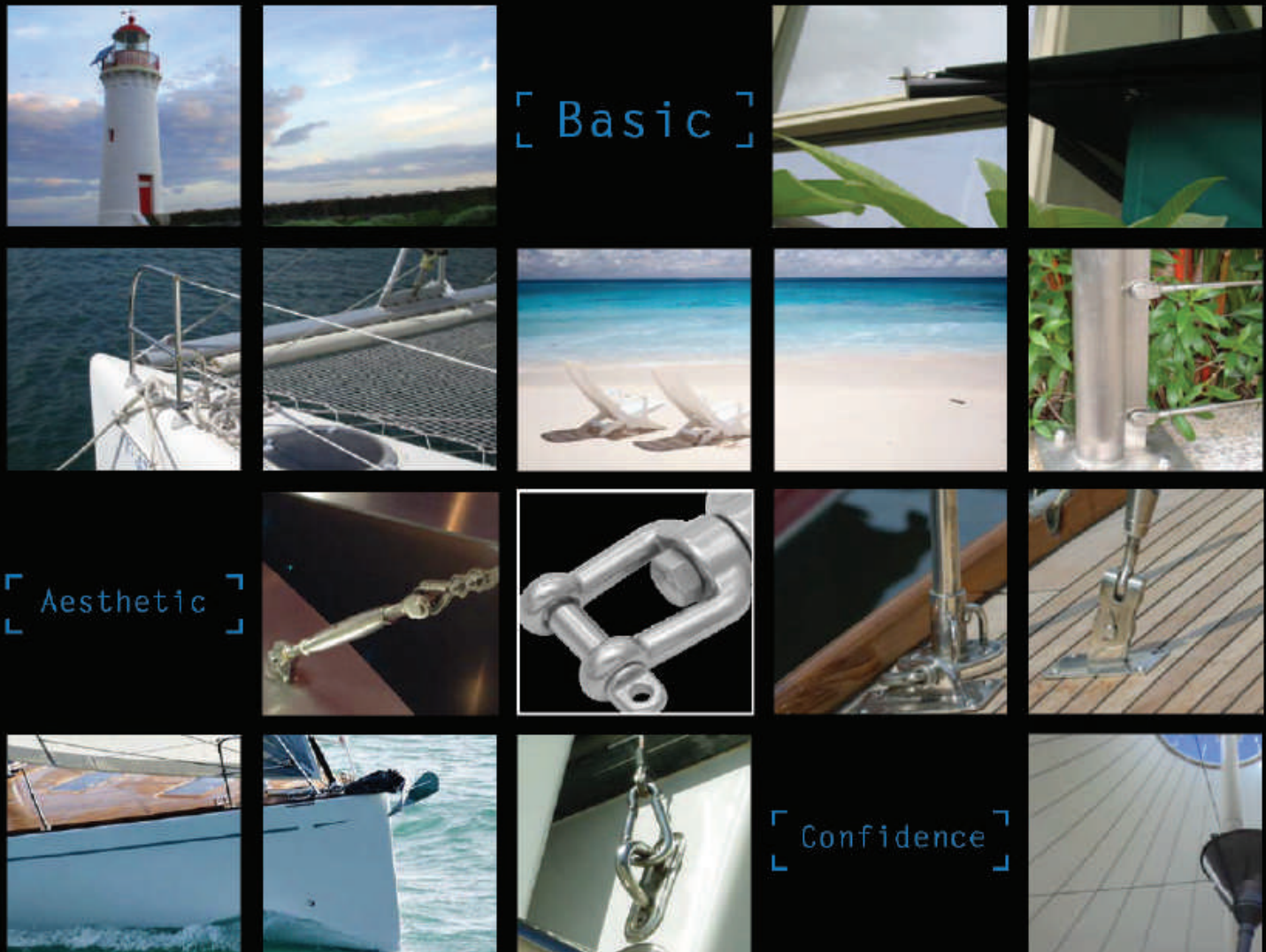
## Comparison chart of major international standards

USA AISI	Japan JIS	Great Britain B.S.	Germany DIN	EN / DIN W.-Nr
CF-8	SCS 13	304 C 15	GX5 CrNi 19-10	1.4308
304	SUS 304	304 S 15	X5 CrNi 18-10	1.4301
CF-8M	SCS 14	316 C 16	GX5 CrNiMo 19-11-2	1.4408
316	SUS 316	316 S 31	X5 CrNiMo 17-12-2	1.4401

Note : This comparison chart matches the closest relative standards of major international standards. Each international standard may still differ slightly.

"Connecting structures"

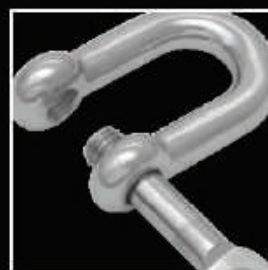
## ADJUSTABLE FORK™



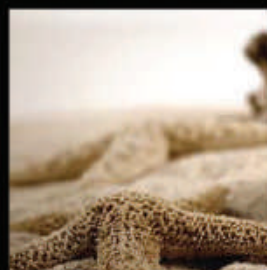
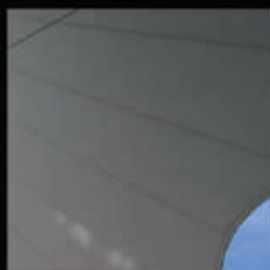
### Language of Stainless Steel

*Environmental, Aesthetic, Confidence.*

[Stainless Steel]



[Environmental]



Stainless steel is an essence in the language of contemporary design. Through its structural resistance and aesthetic beauty, stainless steel speaks with unsurpassed confidence to its surrounding.

At Strudyna, we speak the language of stainless steel. Combining casting and machining of different grades of stainless steel, we have provided a secure platform for many sectors of industry for over three decades. Striving in working ever more closely with our market, we spirit ourselves in challenging new production and design limits.

## ■ ■ Stainless steel

Stainless steels are usually classified into five groups: Austenitic, Ferritic, Martensitic, Duplex (combination of Ferritic and Austenitic), and finally Precipitation-hardening.

**Austenitic** stainless steels contain 16-21% Chromium, 8-14% Nickel and other elements. This stainless group has a face-centered cubic structure and can be hardened by cold working, but not by heat treatment. In the annealed state, all are essentially non magnetic, but slight magnetism does form through cold forming. Austenitic stainless are excellent corrosion resistant, usually good formability and increases in strength as a result of cold forming. Type 316 is the mostly widely accepted grade with a balance performance while type 304 is the cheaper cousin with lower corrosion resistance.

**Ferritic** stainless steels contain 10,5-30% Chromium, not over 0,1% of Carbon and other elements. This stainless group has a body-centered cubic crystal structure and is magnetic with good ductility and fair resistance to corrosion or oxidation. Ferritic stainless performs poorly in both high and low temperatures compared to Austenitic grades. Typical ferric grades include type 405, 408, 409.

**Martensitic** stainless steels contain 12-14% Chromium, 0,2-1% Molybdenum and higher carbon content between 0,1-1,2% Carbon. The high Carbon content gives these Martensitic stainless a higher tensile but also makes them more brittle. This stainless group has a distorted body-centered cubic crystal structure and is usually quenched and magnetic. Typical Martensitic grades include type 410, 416, 420, 430 and 440.

**Duplex** stainless steels contain high Chromium levels between 19-28%, up to 5% Molybdenum but lower Nickel than Austenitic grades. This stainless group has a mixture of Austenitic face-centered and Ferritic body-centered cubic structures. Most duplex alloys are typically designed with equal parts of austenite and ferrite, but some commercial alloy may be 60% austenite to 40% ferrite. Duplex grade stainless typically posses higher strength over Austenitic grade, and has an improved characteristic in localized pitting/cracking or crevice corrosion.

**Precipitated hardening** stainless steel contains 17% Chromium and 4% Nickel. This grade of stainless steel uses elements such as aluminum, copper or titanium to precipitate harden their structure. These may result in either Austenitic or Martensitic annealed conditions. Austenitic conditions can be solution-treated to become Martensitic with sub zero temperature. Also commonly referred to as PH17-4 and type 630, this grade of stainless has a comparable corrosion resistance to Austenitic grades, but can posses even higher strength than Martensitic grade when solution treated.

## ■ ■ Material composition (AISI standards)

Description	C%	Chemical Composition		
		Cr%	Mo%	Ni%
Standard material 304 of Casting (CF-8)	≤ 0.08	18.00-21.00	-	8.00-11.00
Standard material 304 of Non-Casting (304)	≤ 0.08	18.00-20.00	-	8.00-11.00
Standard material 316 of Casting (CF-8M)	≤ 0.08	18.00-21.00	2.00-3.00	9.00-12.00
Standard material 316 of Non-Casting (316)	≤ 0.08	16.00-18.00	2.00-3.00	10.00-14.00

**Note :** All casting sections of this catalog have been examined with spectra analysis for their chemical compositions and tested under internal lab settings of temperature 25 C ± 3 C, humidity 45% ± 10% . Non-casting sections are certified by their respective suppliers.



68 % Chromium



60-63 % Molybdenum



99.8 % Nickel

## Comparison chart of major international standards

USA AISI	Japan JIS	Great Britain B.S.	Germany DIN	EN / DIN W.-Nr
CF-8	SCS 13	304 C 15	GX5 CrNi 19-10	1.4308
304	SUS 304	304 S 15	X5 CrNi 18-10	1.4301
CF-8M	SCS 14	316 C 16	GX5 CrNiMo 19-11-2	1.4408
316	SUS 316	316 S 31	X5 CrNiMo 17-12-2	1.4401

**Note :** This comparison chart matches the closest relative standards of major international standards. Each international standard may still differ slightly.



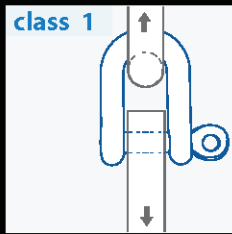
## Load testing

**Load Characteristics** depend greatly on each production method, minimum designed cross section area, material grade, and testing setup. In this section we will cover the fundamentals of load testing setup.

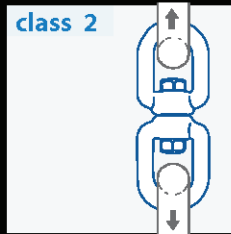
**Safety working load** is different in each geographical area. However, it is strongly recommended to designing your working load not over one quarter (1/4) of the breaking load listed in this catalog as a common and proper safety ratio.

**Proof loading** is a tensile loading procedure prior to the actual use of the product. Since stainless modulus of elasticity is relatively high to that of galvanized steel, (hence giving its unique elongation and warning sign) it is recommended to proof load at 1.8 times of recommended safety working load.

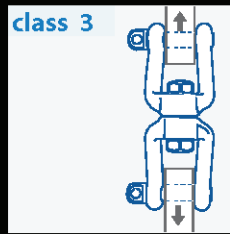
**Load Class types** indicate how each breaking load testing profile is setup and carried within this catalog. The class type are indicated with a <sup>(1)</sup> sign next to the B.L <sup>(1)</sup> sign on the Item menu bar (see page XVII). **Principal testing profile setup stipulates the following conditions:** 1) All items are checked prior to testing against distorted, worn or damaged parts including threads. 2) All items must be fully locked and tighten before testing. 3) Testing is done in room temperature settings. 4) Testing profile is setup in a vertical and undistorted alignment against applied loads. 5) 90% of loading area is covered by the loading tool. 6) Loads are applied in a consistent rate of 2MPa/sec. 7) No shock loading is applied.



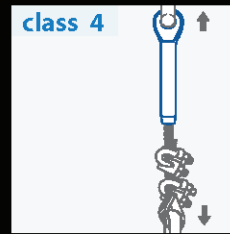
class 1  
Circular load end vs. horizontal flat load end.



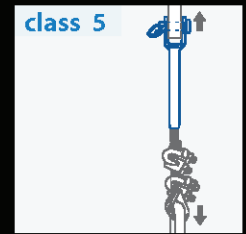
class 2  
Double circular load ends.



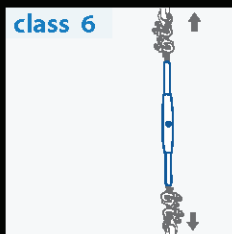
class 3  
Double horizontal flat load ends.



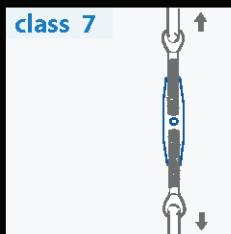
class 4  
Circular load end vs. rolled swaged cable load end.



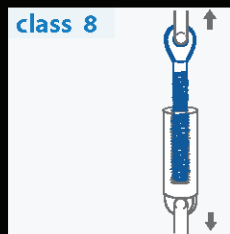
class 5  
Horizontal flat load end vs. rolled swaged cable load end.



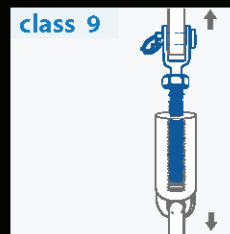
class 6  
Double rolled swaged cable load ends.



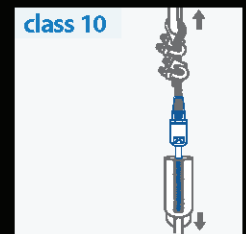
class 7  
Double threaded internal threaded load ends.



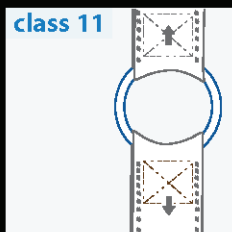
class 8  
Circular load end vs. external threaded load end.



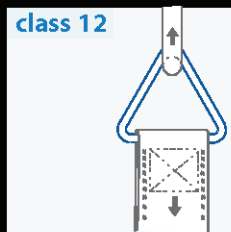
class 9  
Horizontal flat load end vs. external threaded load end.



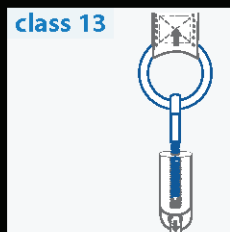
class 10  
Hand swaged load end vs. external threaded load end.



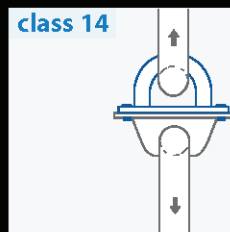
class 11  
Double Nylon strap load ends.



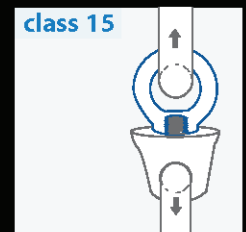
class 12  
Circular load end vs. nylon strap load end.



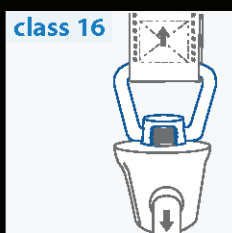
class 13  
Nylon strap load end vs. external threaded load end.



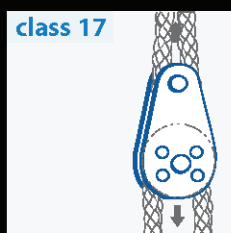
class 14  
Circular load end vs. flat screwed load end.



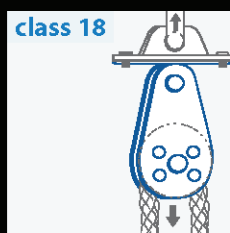
class 15  
Circular load end vs. internal threaded load end.



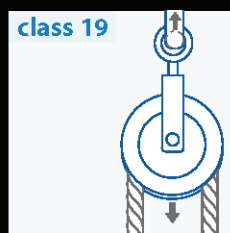
class 16  
Nylon strap load end vs. internal threaded load end.



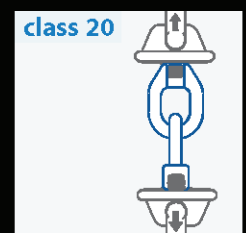
class 17  
Double Nylon rope load ends.



class 18  
Flat screwed load end vs. nylon rope load end.



class 19  
Circular load end vs. nylon rope load end.



class 20  
Double internal threaded load ends.

## ■ ■ Stainless steel fabrication

Sinox basic's stainless steel production strength focuses on five principal processes of stainless steel: Casting, Forging, Press forming, Welding and Surface treatments.



➤ **Casting** utilizes the free shape forming of wax injection followed by five layers of ceramic shell made of silicon mallet sand. Each different grade of ceramic layer is thoroughly covered and dried before the next layer is carefully added. When all layers are formed securely, the wax inside the ceramic is removed using steam, heat and pressure. The ceramic shells are then heated up to 900 degree Celsius before molten stainless steel is poured for product to take shape. Advantage of lost wax casting over their forged or press formed counterparts is that the items can be formed to any desired shape. However, due to the nature of the lost wax casting process, lost wax products provide less strength compared to their forged or machined counterparts.



➤ **Forging** utilizes the principal of heating stainless steel to a soft state of 1020 Celsius before compression force is applied for a forming process. Advantages of forging components are its strength. The molecules are highly compacted to form very high-strength components. The disadvantages of forging components are the limited forms and shapes as well as high molding costs.



➤ **Press forming** is the process by which SS sheets are compressed (cut) or formed (bent) by means of a press machine. This form of manufacturing can be very economical as form sheets can be bent into any desired shape. However, the disadvantages are the limited thickness as well as high molding cost. A variety of after-forming processes, including welding and assembly can be added to complete an end product.



➤ **Welding** in stainless steel is more critical than normal steel. In order to protect contaminating the exposed surface of heated stainless steel, a protective layer of pure Argon gas is applied. Further fillers may be added to extend the strength of the desired products. The two most common welding processes are TIG and MIG welding. MIG uses a higher temperature and thus results in a stronger and more expensive weld.



➤ **Surface finish** is one of the most critical areas of production; it will determine how end users perceive the value of the product as well as its corrosion resistance property. The following is a selection of major surface finishes used in this catalog :

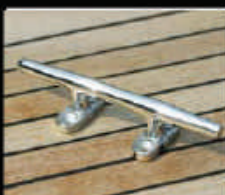
**Mirror finish** involves several layers of fine grinding and waxing to arrive at a mirror exterior. Due to the fine finish, it is the least susceptible to tea stain forming. However, due to the detailing required, it is also the most expensive surface finishing of all.



**Machine finish** is turned (cut) on a Lathe. This results in a very uniform, lined finish and thus has a very mechanical look to it. Most architectural projects choose it for aesthetic effects.

**Matte finish** is the cheap cousin of machined finish. It uses a satin grade of 800 rollers to polish; it provides a non-reflective surface similar to Machine finish, but is much cheaper to do.

**Electro polished finish** uses electricity in a tank of chemicals. Similar to a wet battery setup, the outer layer of molecules of the stainless steel product is peeled away exposing the Chromium molecules resulting in a shining and corrosion-resistance finish.



➤ **Passivation** is the process of making a material "passive" in relation to other contaminants. In stainless steel, this is achieved by rinsing with diluted solution of nitric acid and peroxide alternating with deionized water. The nitric acid and peroxide oxidizes dissolve any impurities on the exposed surface of the stainless steel, and deionized water rinses away acid and oxidized impurities. This process adds an extra layer of protection to stainless steels surfaces.

## Mechanical and physical properties of AISI316 and AISI304

Mechanical properties ambient temperature (Longitudinal samples)						
AISI	Hardness HB 30 [HRB]	0,2% Yield Stress MPa	1% Yield Stress MPa	Tensile Strength, min MPa	Elongation after fracture min%	Impact value (ISO-V) J
CF-8	80-88	175	-	485	35	60 <sup>1)</sup>
304, 304H	215	205	225	515	40	100/60
CF-8M	80-88	185	-	485	30	60 <sup>1)</sup>
316	215	205	235	515	40	100/60

Note : Refer to page IV for more detail of Load testing.

Mechanical properties above ambient temperature							
Mean thermal expansion coefficient between 20°C and (10 <sup>-6</sup> K <sup>-1</sup> )							
AISI	100 °C	200 °C	300 °C	400 °C	500 °C	600 °C	700 °C
CF-8	16.8	-	17.9	-	18.6	-	-
304, 304H	16.0	16.5	17.0	17.5	18.0	18.5	18.5
CF-8M	15.8	-	17.0	-	17.7	-	-
316	16.0	16.5	17.0	17.5	18.0	19.0	19.5

Note : Maximum safety working temperature of all stainless steel product is 300 °C.

Physical properties						
AISI	Density (20 °C) kg dm	Specific heat (20 °C) kg g.K	Heat conduction (20 °C) W K.m	Electric resistance (20 °C) Mm <sup>2</sup> m	Modulus of elasticity (20 °C) kN/mm <sup>2</sup>	Magnetizable
CF-8	7.88	0.53	15	-	-	Yes <sup>1)</sup>
304, 304H	7.90	0.50	15	0.73	200	No
CF-8M	7.90	0.53	15	-	-	Yes <sup>1)</sup>
316	8.00	0.50	15	0.75	200	No

Remark :

1= Shielded arc welding; MIG-welding; WIG-welding (Argon-arc).

<sup>1)</sup>Austenitic steel can be slightly magnetism when quenched. Their magnetism may increase with increased cold forming.

### Force and tensile strength conversions

$$\begin{array}{lcl}
 1 \text{ kg} & = & 9.81\text{N} \\
 1 \text{ MPa} & = & 1 \text{ N/mm}^2
 \end{array}
 \qquad
 \begin{array}{lcl}
 1 \text{ N} & = & 0.1019\text{kg} \\
 1 \text{ Pa} & = & 1\text{N/m}^2
 \end{array}$$

### Imperial to Metric conversion of common units

1 Lb	=	4.45N	1 Kip	=	4.45kN
1 foot	=	0.305m	1 inch	=	25.4m
1 ft2	=	0.0929m <sup>2</sup>	1 in. <sup>2</sup>	=	645mm <sup>2</sup>
1 psi	=	6890 Pa	1 ksi	=	6.89MPa

## ■ Maintenance of stainless steel



Stainless steel is essentially a low carbon steel which contains Chromium at 1% or more by weight. It is this addition of Chromium that gives the steel its unique stainless, corrosion-resisting property, the most important stainless steel feature. The corrosion resistance and other useful properties of the steel such as formability and strength, to name just two, are enhanced by increased Chromium content and the addition of other elements, like Molybdenum, Nickel and/or Nitrogen.

However, the aesthetic and hygienic surface appearance of stainless steel products can not be regarded as completely maintenance-free. In addition, **to achieve maximum corrosion resistance, the surface of the stainless steel must be kept clean.** Keeping its good looks and its long life depends on how regularly and how well it is cleaned. **Surface contamination and the formation of deposits** are critical factors in reducing its shiny life. These contaminants may be minute particles of iron or rust from other non-stainless steels used in nearby construction or welding sparks that were never removed.



Industrial, commercial and even indoor naturally occurring atmospheric conditions can all result in corrosive deposits over extended periods of time. These deposits include cleaning chemicals such as chlorine, fuel as oil vapor, dust, or even salt from the sea. **Other more aggressive conditions including high humidity indoor swimming pools or salt maintained snow roads** can increase the speed of corrosion and therefore require more frequent maintenance. Routine, simple and gentle cleaning will reward the owner with



a product which retains its properties and appearance for years to come. **The frequency and cost of cleaning materials for stainless steel are lower than for many other materials so this will often out-weigh higher acquisition costs.**

## Maintenance Program

The common rule for keeping stainless steel in its original, pristine condition is : **"clean it when it is dirty"**. For regular cleaning, just use ordinary soap, or a mild, diluted detergent, or diluted ammonia in warm water ; **apply with a soft cloth or synthetic sponge.** **Rinse well, dry with a soft cloth or drip dry.** **Occasionally the use of a mild household cleaner, a fine synthetic scourer or a brush with nylon bristles may be used.** Regular cleaning will often remove heavy soiling and accumulated staining.



### Suggestions:

- Routine, simple and gentle cleaning
- Use **only** the above mentioned cleaning products
- Employ repeated routine cleaning rather than an aggressive single one completely



### Suggest not to do:

- Use coarse abrasive powders
- Use metallic scourers
- Use **"Silver Cleaners"**
- Subject stainless steel to **"abnormal"** use



## ■ Caution and warning

All products require regular inspection from trained professionals of each respective country in use.

This process may not be skipped as products are effected by wear, tear, overloading or improper installation.

## ■ Proper installation check list.

- Check proper selection of material, product and size to match your use and environment
- Check all your base structure and fittings are not damaged prior to installation
- Check all pins and screws are in full in position after installation
- Check installation 2 weeks after initial installation and regularly afterwards for any loosening or damage

Production tolerance guidelines for this catalog

Standard	ISO 2768	0.5-6	6-30	30-120	120-400	400-1000	1000-4000
<b>General Casting</b>							
product tolerance (mm)	g	±0.3	±0.5	±0.8	±1.2	±2.0	±3.0
<b>General Machining</b>							
product tolerance (mm)	m	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2

**Note:** Production follows the above guidelines. However, product goes through constant upgrade, Check with manufacture for the latest product specs and tolerances.

Imperial thread to Metric (mm) conversion by group

Inch thread	(mm)	Inch thread	(mm)	Inch thread	(mm)
1"	25.400	3/16"	4.763	7/32"	5.556
1/2"	12.700	5/16"	7.938	9/32"	7.144
1/4"	6.350	7/16"	11.113	11/32"	8.731
3/4"	19.050	9/16"	14.288	13/32"	10.319
1/8"	3.175	11/16"	17.463	1 1/2"	38.100
3/8"	9.525	13/16"	20.813	1 1/4"	31.750
5/8"	15.875	15/16"	23.813	1 1/8"	28.575
7/8"	22.225	5/32"	3.969	1 3/8"	34.925

Imperial thread to Metric (mm) conversion by size

Inch thread	(mm)	Inch thread	(mm)	Inch thread	(mm)
1/8"	3.175	3/8"	9.525	13/16"	20.813
5/32"	3.969	13/32"	10.319	7/8"	22.225
3/16"	4.763	7/16"	11.113	15/16"	23.813
7/32"	5.556	1/2"	12.700	1"	25.400
1/4"	6.350	9/16"	14.288	1 1/8"	28.575
9/32"	7.144	5/8"	15.875	1 1/4"	31.750
5/16"	7.938	11/16"	17.463	1 3/8"	34.925
11/32"	8.731	3/4"	19.050	1 1/2"	38.100

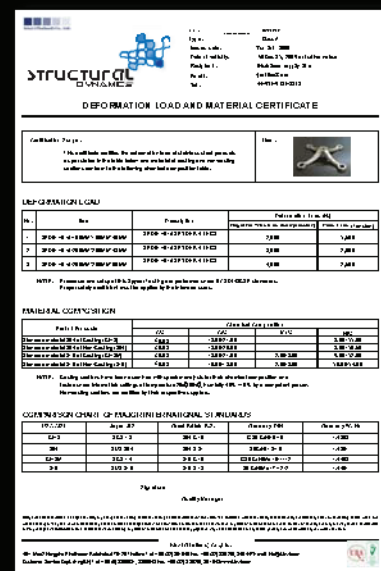
Class A and other Certificates

**Class A certificate** certifies design load as well as material grade and is provided free of charge. Send your request with the following information:

- a) Invoice no.
- b) Invoice date
- c) Product order no.

Certificate for the following criteria can be supplied with a fee.

- Class B) actual product breaking load report
- C) actual chemical composition report
- D) actual product batch traceability
- E) actual product x - ray report
- F) actual metallic crystallization
- G) third party certification



## Reading information in this catalog

This catalog has been designed with an effort to display technical information in a clear and easy to use matter. For further clarification, follow the following description:



**Menu Bar** Organizes the technical information relevant to one single item. In this case S360 D-shackle. SF360 has the same appearance but are upset forged and thus considered a separate item. SF360 menu bar is thus created following the S360 list.

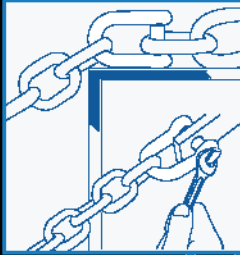

**Casting/Forging materials** are always identified in technical data section. Materials are based in AISI grades with corresponding DIN grade shown. Some items may be available on both SS304 and SS316 material. Refer to menu bar for their respective order numbers.

**Item no.** Shows the relevant items depicted in the item display. One item display may contain several item codes if these items share same appearance but different manufacturing methods. Ex. S360 and SF360

**Item no.** are repeated in three areas of the page, 1) under each item's display, 2) under each item's menu bar and 3) above each technical data section.

**Item display** shows all relevant items presented in the same catalog page. Items are displayed side by side for easy identification of their differences. Product dimensions are labeled with blue arrows with their respective lettering. Check Menu bar for their respective dimensions. Dimension label "A" only appears on S360 but will represent all pin sizes for the all products in the same display. (ex. S360CP and S360LK)

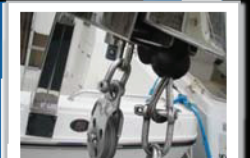
**Threading Logo** appears in front of Item no. to easily identify the type of thread each item uses.  is for metric thread and  is for inch thread.

**S360B, SF360B**

Technical Data  
 Casting material : AISI304 - DIN 1.4308 / AISI316 - DIN 1.4408  
 Forging material : AISI304 - DIN 1.4307 / AISI316 - DIN 1.4401  
 Production : S360B Shackle - Cast  
 Pin - See chart  
 SF360B Shackle/Pin - Forged  
 Surface treatment: "E.P." (Electro polished)

Field of application  
 D-shackles (square head pin) are designed for application where strong wrench tightening pins are required for a prolong use in a fix location.



D-shackle (hexagonal sink pin)

Note<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.  
 Refer to page IV - class 1 load characteristics

Material		SIZE	ØA	B	L	Pin	PPC	B.L. <sup>(1)</sup>
		(mm)	(mm)	(mm)	(mm)		(pieces)	(kgs)
<b>S360B</b>								
SS304	SS316							
4360-1004	6360-1004	4	4	8	16	Cast	4,000	550
4360-1005	6360-1005	5	5	10	20	Cast	2,000	1,000
4360-1006	6360-1006	6	6	12	24	Forged	1,000	1,700
4360-1007	6360-1007	7	7	14	28	Forged	700	2,000
4360-1008	6360-1008	8	8	16	32	Forged	500	2,800
4360-1009	6360-1009	9	9	18	36	Forged	400	3,300
4360-1010	6360-1010	10	10	20	40	Forged	200	4,300
4360-1012	6360-1012	12	12	24	48	Forged	150	6,000
4360-1013	6360-1013	13	13	26	52	Forged	125	6,300
4360-1016	6360-1016	16	16	32	64	Forged	50	10,000
4360-1019	6360-1019	19	19	38	76	Forged	40	15,000
4360-1022	6360-1022	22	22	44	88	Cast	20	19,000
4360-1025	6360-1025	25	25	50	100	Cast	15	23,000
<b>SF360B</b>								
SS316								
2360-1008		8	8	16	32	500		3,500
2360-1010		10	10	20	40	200		5,500
2360-1012		12	12	24	48	150		7,500
2360-1016		16	16	32	64	50		4,000

**Field of application** gives a brief description of how items are used. For more information on each item's application, go to [www.strudyna.com](http://www.strudyna.com).


**Surface treatment** identifies the surface finish of the item. Most common finishes are **E.P.** for electro polish, **M.P.** for Mirror polish, **M.F.** for matte/satin or hair line finish, **S.B.** for Sand blasting finish and **M.A.** for machined finish. Surface finish will be shown on the Menu bar should the item contain different finishes on different sizes within the same item.

**Production** identifies both: major production part (ex. shackle base) and minor production part (ex. pin). Should the production be different between different sizes of the same item "see chart" will appear here. Please refer to the right hand chart under its respective menu bars.

**Item size** are always identified with a highlighted blue for easy identification.

**Production Process** is shown in the menu bar when they differ on different sizes within the same item no. In this case the same Pins are forged or casted. Any other manufacturing process that is identical throughout the item no. will be shown in the technical data section.

**Item no.** of SF360 displays and identify this menu bar's main product.

**Upset forged logo** or  is shown in front of order code should the item is produced with upset forging methods.

**SS316 order no.** is the order number to use when ordering stainless material grade 316. SS316 order numbers are always in bold characters.

**SS304 order no.** is the order number to use when ordering stainless material grade 304. Not all items (ex SF360) will come in both 304 and 316 material. SS304 order numbers are never in Bold characters.

**PPC Logo** or Pieces per carton logo identifies the quantity in pieces packed in a standard carton.

**B.L.** stands for breaking load in kgs. The B.L.<sup>(1)</sup> shows the class of load type this items is setup and tested under. Please see page IV for further information. Please note recommended safe working load is 1/4 of B.L.

## Basic Assembly

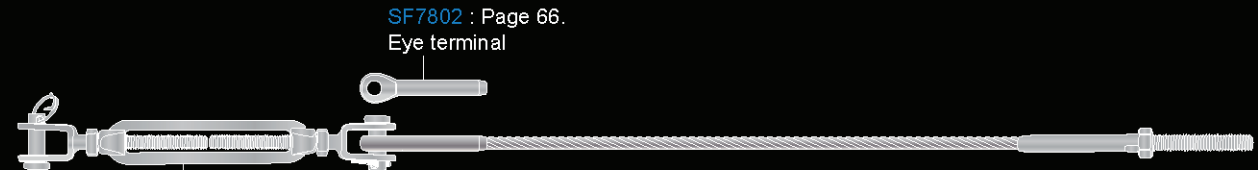


SF3121P : Page 82.  
Pipe turnbuckle, jaw and swage stud

SF7801 : Page 62.  
Right threaded stud terminal



SF7803 : Page 71.  
Swage fork



SF7802 : Page 66.  
Eye terminal

S311JJ : Page 54.  
Frame turnbuckle, jaw and jaw (metric thread)

SF234U : Page 36.  
Light thimbles



S311NHE : Page 53.  
Frame turnbuckle with nut, hook and eye

SF322 : Page 125.  
Wire eye strap



S360 : Page 20.  
D-shackle

S260 : Page 34.  
Wire rope clip



SF7803 : Page 71.  
Swage fork

S311JJ : Page 54.  
Frame turnbuckle, jaw and jaw (metric thread)



S811 : Page 73.  
Eye swageless terminal

S812 : Page 73.  
Fork swageless terminal

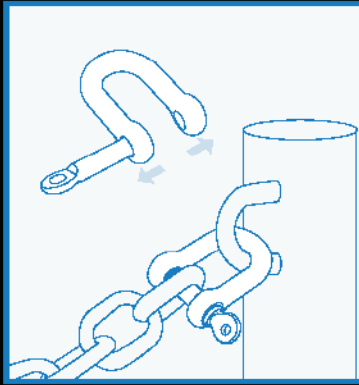



SF3122P/MIN : Page 60.  
Mini pipe turnbuckle, swage terminal and swage terminal





S312P/4 : Page 59.  
Pipe turnbuckle, jaw and swageless terminal

S812 : Page 73.  
Fork swageless terminal



 **S360**  
D-shackle

 **S360CP, SF360CP**  
D-shackle (collared pin)

 **S360LK, SF360LK (forged)**  
D-shackle (locking pin)

## S360

### Technical Data

Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : S360 - Shackle - Cast  
Pin - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

D-Shackles are designed for application where quick manual setup/release assembly pins are required.



## S360CP, SF360CP

### Technical Data

Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : S360CP - Shackle - Cast  
Pin - See chart  
SF360CP - Shackle/Pin - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

D-Shackles (collared pin) are designed for application where a more secure tight pin is required.

## S360LK, SF360LK

### Technical Data


Casting material : AISI316 - DIN 1.4408  
Forging material : AISI316 - DIN 1.4401  
Production : S360LK - Shackle - Cast  
Pin - Forged  
SF360LK - Shackle/Pin - Forged  
Surface treatment : "E.P." (Electro polished)



### Field of application









D-shackles (locking pin) are designed for application where accidental dropping of pin must be avoided during operation, ex. high sea environment or high tower/pole locations.



**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.


Refer to page IV - class 1 load characteristics

Remno.	S360		SIZE (mm)	Ø A (mm)	B (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS304	SS316						
4360-0004		6360-0004	4	4	8	16	3,000	550
4360-0005		6360-0005	5	5	10	20	2,000	1,000
4360-0006		6360-0006	6	6	12	24	1,000	1,700
4360-0007		6360-0007	7	7	14	28	600	2,000
4360-0008		6360-0008	8	8	16	32	500	2,800
4360-0009		6360-0009	9	9	18	36	250	3,500

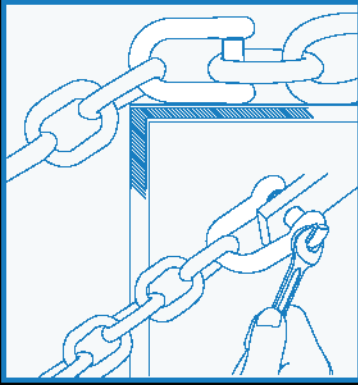
Remno.	S360CP		SIZE (mm)	Ø A (mm)	B (mm)	L (mm)	Pin process			B.L. <sup>(1)</sup> (kgs)
Material	SS304	SS316								
--		6360-0423	3	3	8	12	Forged	4,000	1	400
4360-0424		6360-0424	4	4	8	16	Forged	3,000	1	550
4360-4405		6360-4405	5	5	10	20	Forged	2,000	1	1,000
4360-2006		6360-2006	6	6	12	24	Forged	1,000	2	1,700
4360-2007		6360-2007	7	7	14	28	Forged	600	2	2,000
4360-5208		6360-5208	8	8	16	32	Forged	400	n/a	2,800
4360-5209		6360-5209	9	9	18	36	Forged	300	n/a	3,500
4360-0410		6360-0410	10	10	20	40	Forged	200	n/a	4,500
4360-0412		6360-0412	12	12	24	48	Forged	100	n/a	6,000
4360-0413		6360-0413	13	13	26	52	Forged	125	n/a	6,500
4360-0414		6360-0414	14	14	28	56	Cast	100	n/a	7,000
4360-0416		6360-0416	16	16	32	64	Forged	50	n/a	10,000
4360-0419		6360-0419	19	19	38	76	Forged	40	n/a	15,000
4360-0422		6360-0422	22	22	44	88	Cast	20	n/a	19,000
4360-0425		6360-0425	25	25	50	100	Forged	15	n/a	23,000
4360-0428		6360-0428	28	28	56	112	Cast	10	n/a	26,000
4360-0432		6360-0432	32	32	64	128	Cast	8	n/a	38,000

Remno.	SF360CP		SIZE (mm)	Ø A (mm)	B (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316							
 2360-0404			4	4	8	16	3,000	900
 2360-0405			5	5	10	20	2,000	1,600
 2360-0406			6	6	12	24	1,000	2,000
 2360-0408			8	8	16	32	500	3,500
 2360-0410			10	10	20	40	200	5,500
 2360-0412			12	12	24	48	100	7,500
 2360-0416			16	16	32	64	50	14,000

Remno.	S360LK		SIZE (mm)	Ø A (mm)	B (mm)	L (mm)			B.L. <sup>(1)</sup> (kgs)
Material	SS316								
		6360-5004	4	4.40	8	16	3,000	1	800
		6360-5005	5	4.40	10	20	1,500	1	1,000
		6360-5006	6	5.25	12	24	1,000	2	1,400
		6360-5008	8	7.10	16	32	500	2	2,800
		6360-5010	10	8.90	20	40	250	n/a	4,000
		6360-5012	12	10.70	24	48	125	n/a	6,200

Remno.	SF360LK		SIZE (mm)	Ø A (mm)	B (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316							
 2360-5005			5	5.26	10	20	3,000	1,500
 2360-5006			6	6.35	12	24	1,500	2,200
 2360-5008			8	8.00	16	32	1,000	3,800
 2360-5010			10	10.00	20	40	500	4,800
 2360-5012			12	12.52	24	48	250	8,000





## S360B, SF360B

### Technical Data

Casting material : AISI304 - DIN 1.4308/  
 AISI316 - DIN 1.4408  
 Forging material : AISI304 - DIN 1.4301/  
 AISI316 - DIN 1.4401  
 Production : S360B - Shackle - Cast  
 Pin - See chart  
 SF360B - Shackle/Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

D-shackles (square head pin) are designed for application where strong wrench tightening pins are required for a prolong use in a fix location.



D-shackle (hexagonal sink pin)

## S360C, SF360C



### Technical Data

Casting material : AISI304 - DIN 1.4308/  
 AISI316 - DIN 1.4408  
 Forging material : AISI304 - DIN 1.4301/  
 AISI316 - DIN 1.4401  
 Production : S360C - Shackle - Cast  
 Pin - See chart  
 SF360C - Shackle/Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Shackles (oval sinkpin) are designed for application where a continuous smooth and round side is required.

## S360CI



### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : S360CI - Shackle - Cast  
 Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Shackles (hexagonal sink pin) are designed for application in public places where direct malicious manual tampering may occur.

**Note:** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



S360B, SF360B  
 D-shackle  
 (square head pin)



S360C, SF360C  
 D-shackle  
 (oval sink pin)



S360CI  
 D-shackle  
 (hexagonal sink pin)

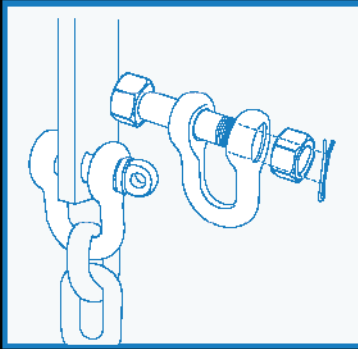
Rem.no.	S360B		SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
4360-1004		6360-1004	4	4	8	16	Cast	4,000	550
4360-1005		6360-1005	5	5	10	20	Cast	2,000	1,000
4360-1006		6360-1006	6	6	12	24	Forged	1,000	1,700
4360-1007		6360-1007	7	7	14	28	Forged	700	2,000
4360-1008		6360-1008	8	8	16	32	Forged	500	2,800
4360-1009		6360-1009	9	9	18	36	Forged	400	3,500
4360-1010		6360-1010	10	10	20	40	Forged	200	4,500
4360-1012		6360-1012	12	12	24	48	Forged	150	6,000
4360-1013		6360-1013	13	13	26	52	Forged	125	6,500
4360-1016		6360-1016	16	16	32	64	Forged	50	10,000
4360-1019		6360-1019	19	19	38	76	Forged	40	15,000
4360-1022		6360-1022	22	22	44	88	Cast	20	19,000
4360-1025		6360-1025	25	25	50	100	Cast	15	23,000

Rem.no.	SF360B		SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS316		(mm)	(mm)	(mm)	(mm)			(kgs)
F 2360-1008			8	8	16	32		500	3,500
F 2360-1010			10	10	20	40		200	5,500
F 2360-1012			12	12	24	48		150	7,500
F 2360-1016			16	16	32	64		50	14,000

Rem.no.	S360C		SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
4360-4004		6360-4004	4	4	8	16	Forged	4,000	550
4360-4005		6360-4005	5	5	10	20	Forged	2,000	1,000
4360-4006		6360-4006	6	6	12	24	Forged	1,000	1,700
4360-4007		6360-4007	7	7	14	28	Forged	700	2,000
4360-4008		6360-4008	8	8	16	32	Forged	500	2,800
4360-4009		6360-4009	9	9	18	36	Forged	400	3,500
4360-4010		6360-4010	10	10	20	40	Forged	250	4,500
4360-4012		6360-4012	12	12	24	48	Forged	150	6,000
4360-4013		6360-4013	13	13	26	52	Cast	125	6,500
4360-4016		6360-4016	16	16	32	64	Forged	60	10,000
4360-4019		6360-4019	19	19	38	76	Cast	45	15,000
4360-4022		6360-4022	22	22	44	88	Cast	20	19,000
4360-4025		6360-4025	25	25	50	100	Cast	15	23,000

Rem.no.	SF360C		SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS316		(mm)	(mm)	(mm)	(mm)			(kgs)
F 2360-4008			8	8	16	32		500	3,500
F 2360-4010			10	10	20	40		250	5,500
F 2360-4012			12	12	24	48		150	7,500
F 2360-4016			16	16	32	64		60	14,000

Rem.no.	S360CI		SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS316		(mm)	(mm)	(mm)	(mm)			(kgs)
		6360-5106	6	6	12	24		1,000	1,700
		6360-5108	8	8	16	32		500	2,800
		6360-5110	10	10	20	40		250	4,500
		6360-5112	12	12	24	48		150	6,000



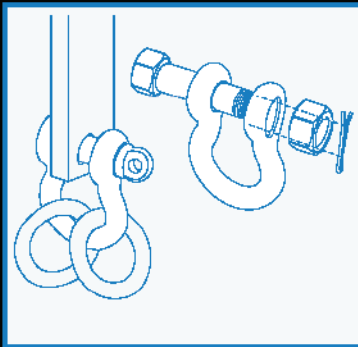
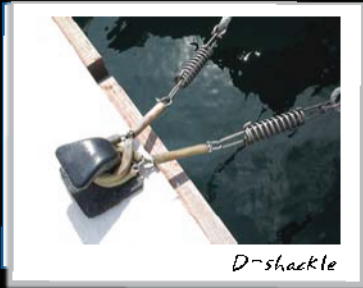
## S3611, S3611BB

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Surface treatment : "E.P." (Electro polished)  
 Production : S3611 - Shackle /Pin- Cast  
 S3611BB - Shackle /Pin- Cast

### Field of application

Over-size D-shackles and Over-size D-shackles (nut and cotter pin) are designed for application where extra heavy loads are expected. The pins for over-size type are larger than standard D-shackles. Over-size cotter pin D-shackles are expected as well as secure cotter pin to avoid unexpected loosening by vibration or wind.



## S2711, S2711BB

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S2711 - Shackle /Pin- Cast  
 S2711BB - Shackle /Pin- Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application


Over-size anchor shackles are designed for application where multiple connecting links as well as strong load are expected. Pins for over-size type are larger than normal.

Over-size anchor shackles (nut and cotter pin) are designed for application where multiple connecting links are required as well as a strong heavy load anti vibration pin which can withstand continuous vibration from wind or movement.


**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.


Refer to page IV - class 1 load characteristics



 **S3611**  
Oversize D-shackle




 **S3611BB**  
Oversize D-shackle  
(nut and cotter pin)


Item no.	<b>S3611</b>	SIZE	ØA	B	L		B.L. <sup>(1)</sup>
Material	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)
	6361-1316	3/16"	6.25	9.52	22	1,000	1,250
	6361-1104	1/4"	7.80	11.90	26	500	2,400
	6361-1516	5/16"	9.40	13.50	30	300	4,100
	6361-1308	3/8"	11.00	15.90	37	200	4,900
	6361-1716	7/16"	12.50	20.60	44	125	7,300
	6361-1102	1/2"	15.70	20.60	50	90	9,900
	6361-1508	5/8"	19.00	27.00	60	50	13,000
	6361-1304	3/4"	22.20	30.20	70	25	18,000
	6361-1708	7/8"	25.40	38.10	85	15	20,000
	6361-1001	1"	28.50	41.30	97	12	23,000

Item no.	<b>S3611BB</b>	SIZE	ØA	B	L		B.L. <sup>(1)</sup>
Material	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)
	6361-1913	3/16"	6.35	9.52	22	1,000	1,250
	6361-1214	1/4"	7.93	11.90	26	500	2,400
	6361-1251	5/16"	9.52	13.50	30	300	4,100
	6361-1238	3/8"	11.11	15.90	37	200	4,900
	6361-1271	7/16"	12.70	20.60	44	125	7,300
	6361-1212	1/2"	15.87	20.60	50	80	9,900
	6361-1258	5/8"	19.05	27.00	60	45	13,000
	6361-1234	3/4"	22.22	30.20	70	25	18,000
	6361-1278	7/8"	25.40	38.10	85	15	20,000
	6361-1201	1"	28.57	41.30	97	12	23,000



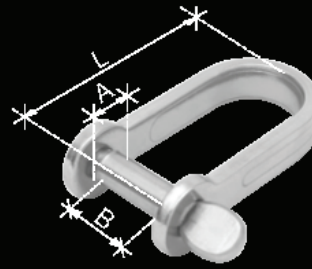
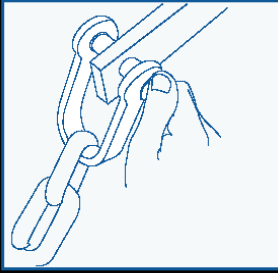
 **S2711**  
Oversize anchor shackle



 **S2711BB**  
Oversize anchor shackle  
(nut and cotter pin)

Item no.	<b>S2711</b>	SIZE	ØA	B	L		B.L. <sup>(1)</sup>
Material	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)
	6271-3614	3/16"	6.25	9.52	25.40	1,000	1,500
	6271-1456	1/4"	7.80	11.90	31.00	500	2,200
	6271-5638	5/16"	9.40	13.50	36.50	300	3,000
	6271-3876	3/8"	11.00	15.90	42.00	200	4,800
	6271-7612	7/16"	12.50	20.60	49.20	100	7,000
	6271-1258	1/2"	15.70	20.60	55.60	80	8,700
	6271-5834	5/8"	19.00	27.00	68.30	40	12,000
	6271-3478	3/4"	22.20	30.20	84.10	25	16,000
	6271-7801	7/8"	25.40	38.10	100.00	20	19,000
	6271-0118	1"	28.50	41.30	112.70	10	28,000

Item no.	<b>S2711BB</b>	SIZE	ØA	B	L		B.L. <sup>(1)</sup>
Material	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)
	6271-1973	3/16"	6.35	9.52	25.40	1,000	1,500
	6271-8516	1/4"	7.93	11.90	31.00	500	2,200
	6271-8308	5/16"	9.52	13.50	36.50	300	3,000
	6271-8716	3/8"	11.11	15.90	42.00	150	4,800
	6271-8102	7/16"	12.70	20.60	49.20	100	7,000
	6271-8508	1/2"	15.87	20.60	55.60	70	8,700
	6271-8304	5/8"	19.05	27.00	68.30	45	12,000
	6271-8708	3/4"	22.22	30.20	84.10	20	16,000
	6271-8001	7/8"	25.40	38.10	100.00	15	19,000
	6271-8118	1"	28.57	41.30	112.70	10	28,000



**S361**  
Light stamped shackle



### S361

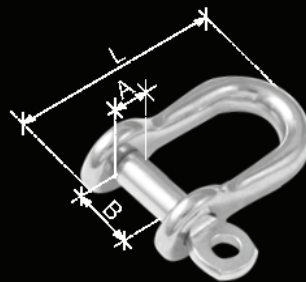
#### Technical Data

Forging material : AISI304 - DIN 1.4301  
 Production : S361 - Shackle / Pin- Forged  
 Surface treatment : "E.P." (Electro polished)

#### Field of application

Light stamped shackles are designed for very light applications where a simple no load tightening shackle is needed.

Item no.	S361	SIZE (mm)	ØA (mm)	B (mm)	L (mm)		B.L. (1) (kgs)
Material	SS304						
	4361-0004	4	4	10	19.6	4,000	600
	4361-0005	5	5	12	23.5	2,000	950
	4361-0006	6	6	15	27.5	1,400	1,600
	4361-0008	8	8	23	48.0	350	2,600



**S361R**  
Light D-shackle



**SF361R**  
Sheet shackle



### S361R, SF361R

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI304 - DIN 1.4301  
 Sheet : AISI316 - DIN 1.4401  
 Production : S361R - Shackle - Cast  
 Pin- Forged  
 : SF361R - Shackle - Sheet  
 Pin- Forged

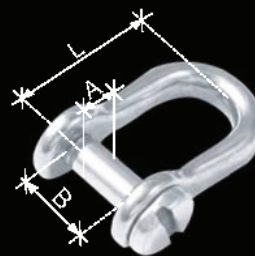
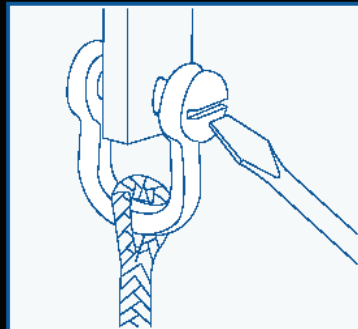
Surface treatment : "E.P." (Electro polished)

#### Field of application

Light D-shackles and Sheet shackles are designed for simple removable light jobs where load isn't a critical factor.

Item no.	S361R	SIZE (mm)	ØA (mm)	B (mm)	L (mm)		B.L. (1) (kgs)
Material	SS316						
	6361-2005	5	5	12	31.2	1,400	950
	6361-2006	6	6	13	37.0	1,000	1,500
	6361-2008	8	8	18	46.5	450	2,600

Item no.	SF361R	SIZE (mm)	ØA (mm)	B (mm)	L (mm)		B.L. (1) (kgs)
Material	SS304						
	1361-0004	4	4	10	24.5	2,500	600
	1361-0005	5	5	11	30.7	1,400	1,000
	1361-0006	6	6	14	37.0	1,000	1,600
	1361-0008	8	8	18	49.0	500	2,800



**S361RF**  
Light D-shackle (flat screw pin)



**SF361RF**  
Sheet shackle (flat screw pin)



### S361RF, SF361RF

#### Technical Data

Forging material : AISI304 - DIN 1.4301  
 Production : S361RF - Shackle - Cast  
 Pin- Forged  
 : SF361RF - Shackle - Sheet  
 Pin- Forged

Surface treatment : "E.P." (Electro polished)

#### Field of application

Light D-shackles and Sheet shackles (flat screw pin) are designed for permanent light jobs where load isn't a critical factor.

**Note:** (1) Standard safety factor for working load is 1/4 of breaking load.

Item no.	S361RF	SIZE (mm)	ØA (mm)	B (mm)	L (mm)		B.L. (1) (kgs)
Material	SS304						
	4361-3005	5	5	12	21.0	1,400	950
	4361-3006	6	6	13	25.3	1,000	1,500
	4361-3088	8	8	18	33.0	450	2,600

Item no.	SF361RF	SIZE (mm)	ØA (mm)	B (mm)	L (mm)		B.L. (1) (kgs)
Material	SS304						
	1361-0104	4	4	10	16	1,500	600
	1361-0105	5	5	11	21	1,400	1,000
	1361-0106	6	6	14	25	1,000	1,600
	1361-0108	8	8	18	33	450	2,800

Refer to page IV - class I load characteristics



**S370**  
Anchor shackle

**S370CP, SF370CP**  
Anchor shackle  
(collared pin)

**S371LK**  
Anchor shackle  
(locking pin)



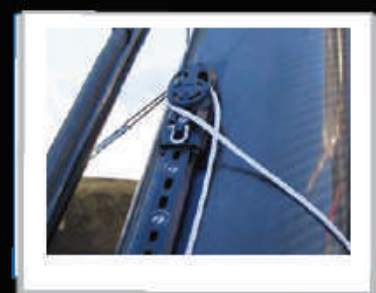
**Technical Data**  
 Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S370 - Shackle - Cast  
 Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

**Field of application**  
 Anchor shackles are designed for application where a quick assembly of multiple connecting links are anticipated.



**Technical Data**  
 Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S370CP - Shackle - Cast  
 Pin - See draft  
 SF370CP - Shackle/Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

**Field of application**  
 Anchor shackles (collared pin) are designed for application where a more securely tight pin is required.



**Technical Data**  
 Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S371LK - Shackle - Cast  
 Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

**Field of application**  
 Anchor shackles (locking pin) are designed for application where multiple connecting links are required as well as prevention from accidental dropping of pin.

**Note:** <sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

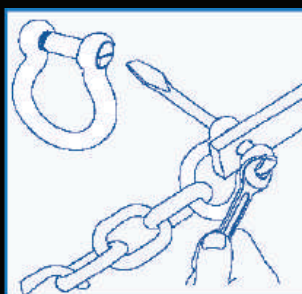
Refer to page IV - class I load characteristics

Item No.	SIZE	ØA (mm)	B (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316					
	<b>6370-0004</b>	4	4	8	20.00	2,000
	<b>6370-0005</b>	5	5	10	25.50	1,200
	<b>6370-0006</b>	6	6	12	30.00	800
	<b>6370-0008</b>	8	8	16	41.00	400

Item No.	SIZE	ØA (mm)	B (mm)	L (mm)	Pin		P P C	B.L. <sup>(1)</sup> (kgs)
Material	SS316							
	<b>6370-3003</b>	3	3	8	16.50	Forged	3,000	1
	<b>6370-3004</b>	4	4	8	20.00	Forged	2,000	1
	<b>6370-3005</b>	5	5	10	25.50	Forged	1,200	1
	<b>6370-3006</b>	6	6	12	30.00	Forged	800	2
	<b>6370-3008</b>	8	8	16	41.00	Forged	400	2
	<b>6370-3010</b>	10	10	20	51.00	Forged	200	n/a
	<b>6370-3012</b>	12	12	24	61.00	Forged	120	n/a
	<b>6370-3013</b>	13	13	26	66.50	Forged	100	n/a
	<b>6370-3014</b>	14	14	28	70.00	Cast	80	n/a
	<b>6370-3016</b>	16	16	32	82.00	Forged	50	n/a
	<b>6370-3019</b>	19	19	38	97.00	Forged	30	n/a
	<b>6370-3022</b>	22	22	44	110.00	Cast	20	n/a
	<b>6370-3025</b>	25	25	50	125.00	Forged	15	n/a
	<b>6370-3028</b>	28	28	56	140.00	Cast	10	n/a
	<b>6370-3032</b>	32	32	64	160.00	Cast	6	n/a

Item No.	SIZE	ØA (mm)	B (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316					
	<b>2370-0404</b>	4	4	8	17.00	2,000
	<b>2370-0405</b>	5	5	10	21.25	1,200
	<b>2370-0406</b>	6	6	12	25.50	800
	<b>2370-0408</b>	8	8	16	34.00	400
	<b>2370-0410</b>	10	10	20	42.50	200
	<b>2370-0412</b>	12	12	24	51.00	120
	<b>2370-0413</b>	13	13	26	55.75	100
	<b>2370-0416</b>	16	16	32	68.00	50

Item No.	SIZE	ØA (mm)	B (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316					
	<b>6371-0105</b>	5	4.40	10	20	1,200
	<b>6371-0106</b>	6	5.26	12	24	800
	<b>6371-0108</b>	8	7.12	16	32	500
	<b>6371-0110</b>	10	8.93	20	40	200
	<b>6371-0112</b>	12	10.75	24	48	120



**S370B, SF370B**  
Anchor shackle  
(square head pin)

**S370C, SF370C**  
Anchor shackle  
(oval sink pin)



## S370B, SF370B

### Technical Data

Casting material : AISI 316 - DIN 1.4401  
 Forging material : AISI 316 - DIN 1.4401  
 Production : S370B - Shackle - Cast  
 Pin - See chart  
 SF370B - Shackle/Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Anchor shackles (square head pin) are designed for application where multiple connecting links are required as well as a permanent wrench tighten pin.



Forma	<b>S370B</b>	SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
	6370-1004	4	4	8	20,00	Cast	2,000	550
	6370-1005	5	5	10	25,50	Cast	1,200	1,000
	6370-1006	6	6	12	30,00	Forged	800	1,700
	6370-1008	8	8	16	41,00	Forged	400	2,800
	6370-1010	10	10	20	51,00	Forged	200	4,500
	6370-1012	12	12	24	61,00	Forged	120	6,000
	6370-1013	13	13	26	66,50	Forged	100	6,500
	6370-1016	16	16	32	82,00	Forged	50	10,000
	6370-1019	19	19	38	97,00	Forged	30	15,000
	6370-1022	22	22	44	110,00	Cast	20	19,000
	6370-1025	25	25	50	125,00	Cast	15	23,000

Forma	<b>SF370B</b>	SIZE	ØA	B	L		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
F	2370-1008	8	8	16	34,00	400	3,500
F	2370-1010	10	10	20	42,50	200	5,500
F	2370-1012	12	12	24	51,00	120	7,500
F	2370-1013	13	13	28	55,75	100	9,000
F	2370-1016	16	16	32	68,00	50	14,000



## S370C, SF370C

### Technical Data

Casting material : AISI 316 - DIN 1.4401  
 Forging material : AISI 316 - DIN 1.4401  
 Production : S370C - Shackle - Cast  
 Pin - See chart  
 SF370C - Shackle/Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Anchor shackles (oval sink pin) are design for application where multiple connecting links are required as well as a non-intrusive sinken pin.

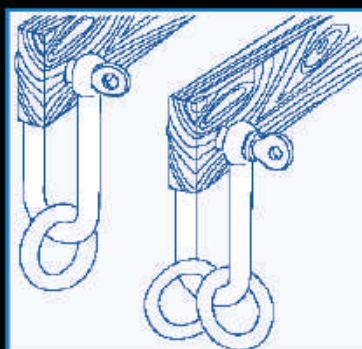
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class I load characteristics



Forma	<b>S370C</b>	SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
	6370-2004	4	4	8	20,00	Forged	2,000	550
	6370-2005	5	5	10	25,50	Forged	1,200	1,000
	6370-2006	6	6	12	30,00	Forged	800	1,700
	6370-2008	8	8	16	41,00	Forged	400	2,800
	6370-2010	10	10	20	51,00	Forged	200	4,500
	6370-2012	12	12	24	61,00	Forged	120	6,000
	6370-2013	13	13	26	66,50	Cast	100	6,500
	6370-2016	16	16	32	82,00	Cast	50	10,000
	6370-2019	19	19	38	97,00	Cast	30	15,000
	6370-2022	22	22	44	110,00	Cast	20	19,000
	6370-2025	25	25	50	125,00	Cast	15	23,000

Forma	<b>SF370C</b>	SIZE	ØA	B	L		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
F	2370-2008	8	8	16	34,00	400	3,500
F	2370-2010	10	10	20	42,50	200	5,500
F	2370-2012	12	12	24	51,00	120	7,500
F	2370-2013	13	13	26	55,75	100	9,000
F	2370-2016	16	16	32	68,00	50	14,000



## S362

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S362 - Shackle - Cast  
 Pin - Forged


Surface treatment : "E.P." (Electro polished)

### Field of application

Long D-shackles are designed for application where a quick setup with long reach opening are required.




## S362CP Long D-shackle

Material	S362	SIZE (mm)	ØA (mm)	B (mm)	L (mm)		B.L. (1) (kgs)
	SS316						
	6362-0004	4	4	8	32	2,000	500
	6362-0005	5	5	10	40	1,000	1,000
	6362-0006	6	6	12	48	600	1,700
	6362-0008	8	8	16	64	250	2,500



## S362LK Long D-shackle (locking pin)

Material	S362CP	SIZE (mm)	ØA (mm)	B (mm)	L (mm)		P B C	B.L. (1) (kgs)
	SS316							
	6362-3004	4	4	8	32	2,000	1	500
	6362-3005	5	5	10	40	1,000	2	1,000
	6362-3006	6	6	12	48	600	2	1,700
	6362-3008	8	8	16	64	250	3	2,500
	6362-3010	10	10	20	80	100	3	3,500
	6362-3012	12	12	24	96	80	3	5,400

## S362CP

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S362CP - Shackle - Cast  
 Pin - Forged

Surface treatment : "E.P." (Electro polished)

### Field of application

Long D-shackles (collared pin) are designed for application where a more secure tightening pin is required.

## S362LK

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S362LK - Shackle - Cast  
 Pin - Forged


Surface treatment : "E.P." (Electro polished)

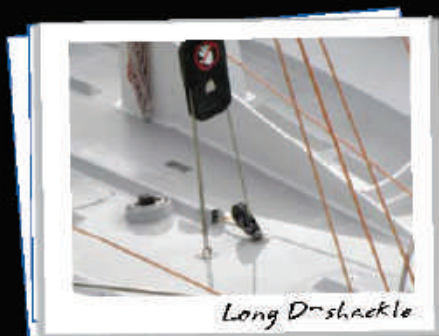
### Field of application

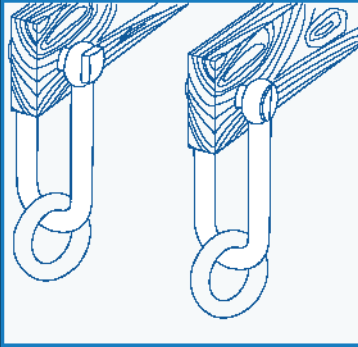
Long D-shackles (locking pin) are designed for application where a long reach shackle opening as well as anti-dropping pins is required.

**Note:** (1) Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class I load characteristics

Material	S362LK	SIZE (mm)	ØA (mm)	B (mm)	L (mm)		B.L. (1) (kgs)
	SS316						
	6362-2004	4	4.40	8	32	2,000	500
	6362-2005	5	4.40	10	40	1,000	1,000
	6362-2006	6	5.25	12	48	600	1,700
	6362-2008	8	7.10	16	64	250	2,500
	6362-2010	10	8.90	20	80	120	3,500
	6362-2012	12	10.70	24	96	100	5,400





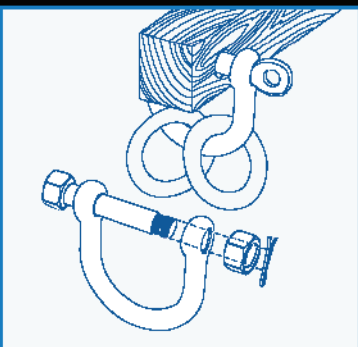
## S362B, S362C

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Surface treatment : "E.P." (Electro polished)  
 Production : S362B - Shackle - Cast  
 Pin - See chart  
 : S362C - Shackle - Cast  
 Pin - Forged

### Field of application

Long D-shackles (square head pin) and Long D-shackles (oval sink pin) are designed for application where a strong wrench tightening pin, as well as a long reach shackle openings are required.



## S360BWN, S360WO

### Technical Data

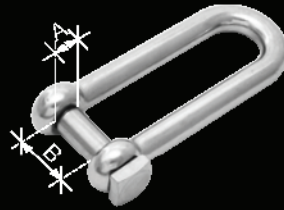
Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S360BWN - Shackle - Cast  
 Pin - Forged  
 : S360WO - Shackle - Cast  
 Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Wide D-shackles (nut and cotter pin) and Wide D-shackles are designed for application where large opening shackles as well as a permanent wind/vibration resistant pins are required.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



**M** S362B  
Long D-shackle  
(square head pin)

Item no.	S362B	SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
	6362-4004	4	4	8	32	Cast	3,000	500
	6362-4005	5	5	10	40	Cast	1,600	1,000
	6362-4006	6	6	12	48	Forged	800	1,700
	6362-4008	8	8	16	64	Forged	350	2,500
	6362-4010	10	10	20	80	Forged	150	3,500
	6362-4012	12	12	24	96	Forged	100	5,400



**M** S362C  
Long D-shackle  
(oval sink pin)

Item no.	S362C	SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
	6362-1004	4	4	8	32	Cast	2,000	500
	6362-1005	5	5	10	40	Cast	1,000	1,000
	6362-1006	6	6	12	48	Forged	600	1,700
	6362-1008	8	8	16	64	Forged	250	2,500
	6362-1010	10	10	20	80	Forged	100	3,500
	6362-1012	12	12	24	96	Forged	100	5,400



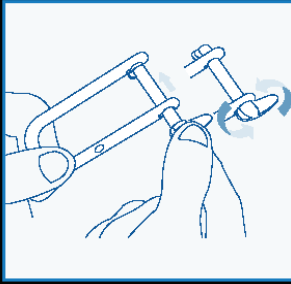
**M** S360BWN  
Wide D-shackle (nut and cotter pin)

Item no.	S360BWN	SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
	6360-3009	9	8	36	50.0	Cast	150	2,800
	6360-3012	12	12	55	60.0	Cast	75	4,000



**M** S360WO  
Wide D-shackle

Item no.	S360WO	SIZE	ØA	B	L	Pin		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
	6360-9005	5	5	25	22.5	Cast	1,000	750
	6360-9006	6	6	24	36.0	Cast	500	1,350
	6360-9008	8	8	28	35.0	Cast	300	2,500
	6360-9010	10	10	40	60.0	Cast	100	3,350
	6360-9012	12	12	48	72.0	Cast	85	4,000



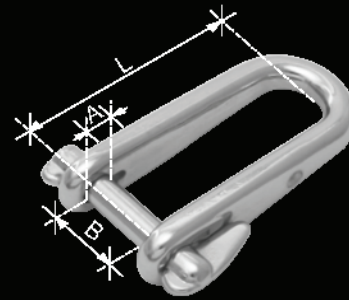
## S365LK

### Technical Data



Casting material : AISI316 - DIN 1.4408  
 Production : S365LK - Shackle/Pin - Cast  
 Surface treatment : "E.P." (Electro polished)

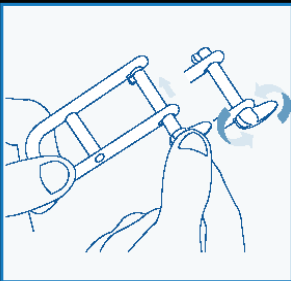
### Field of application

Halyard shackles (locking pin) are designed specifically for marine applications where quick 180° releases pin as well as anti-dropping function is required.



## S365LK Halyard shackle (locking pin)

Item no.	S365LK	SIZE (mm)	ØA (mm)	B (mm)	L (mm)			B.L. <sup>(1)</sup> (kgs)
Material	SS316							
	6365-0005	5	5	13	40.5	600	2	1,000
	6365-0106	6	6	16	46.0	500	2	1,600
	6365-0008	8	8	22	64.0	250	3	2,250



## S365DLK

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S365DLK - Shackle/Pin - Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application



Halyard shackles (cross bar with locking pin) are designed specifically for marine application where a quick 180° release pin as well as independent eye end is required.

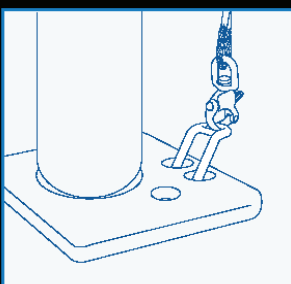
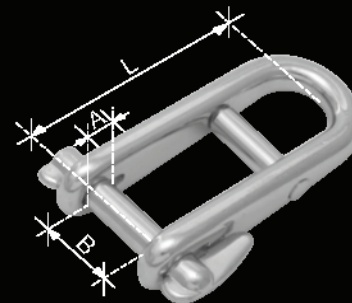
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



## S365DLK Halyard shackle (cross bar with locking pin)

Item no.	S365DLK	SIZE (mm)	ØA (mm)	B (mm)	L (mm)			B.L. <sup>(1)</sup> (kgs)
Material	SS316							
	6365-1005	5	5	13	40.5	600	2	1,000
	6365-1006	6	6	16	46.0	400	2	1,600
	6365-1008	8	8	22	64.0	175	3	2,250



## S364LK

### Technical Data



Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S364LK - Shackle - Cast  
 Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

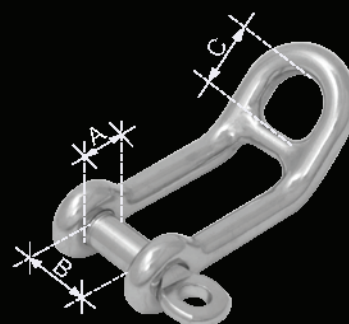
### Field of application

Headboard shackles (cross bar and locking pin) are designed for marine application where a quick assembly shackle with independent eye end is required.

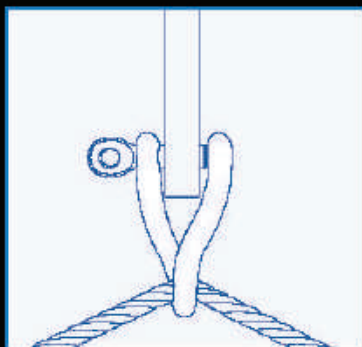


## S364LK Headboard shackle (cross bar and locking pin)

Item no.	S364LK	SIZE (mm)	ØA (mm)	B (mm)	C (mm)			B.L. <sup>(1)</sup> (kgs)
Material	SS316							
	6364-0006	6	7.1	12	11.25	400	2	1,900
	6364-0008	8	8.9	16	15.00	180	3	3,700
	6364-0010	10	10.7	20	18.75	120	n/a	5,200
	6364-0012	12	12.4	24	22.50	70	n/a	6,500







**M** S380  
Twist shackle



**M** S380CP  
Twist shackle (collared pin)



## S380, S380CP, S380LK

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S380 - Shackle - Cast

Pin - Forged  
 S380CP - Shackle - Cast  
 Pin - Forged  
 S380LK - Shackle - Cast  
 Pin - Forged

Surface treatment : "E.M" (Electro polished)

### Field of application

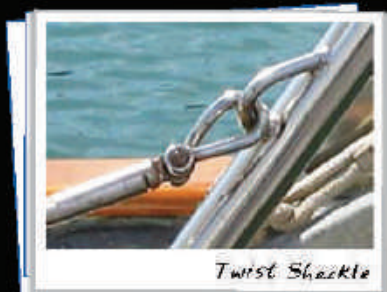
Twist shackles and Twist shackles with locking pin are designed for application where a 90° angle twist setup is required.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1.74 of breaking load.

Refer to page IV - class I load characteristics

Form No.	S380	SIZE	ØA	B	L		PBC	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
	6380-0004	4	4	8	24	2,000	1	665
	6380-0005	5	5	10	30	1,000	2	1,100
	6380-0006	6	6	12	36	600	2	1,600
	6380-0008	8	8	16	44	505	3	2,800

Form No.	S380CP	SIZE	ØA	B	L		PBC	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
	6380-8004	4	4	8	24	2,000		665
	6380-8005	5	5	10	30	1,000		1,100
	6380-8006	6	6	12	36	600		1,600
	6380-8008	8	8	16	44	505		2,800
	6380-8010	10	10	20	51	200		4,600
	6380-8012	12	12	24	66	125		6,000



Twist Shackle



**M** S380LK  
Twist shackle with locking pin

Form No.	S380LK	SIZE	ØA	B	L		PBC	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kgs)
	6380-5006	6	6	12	36	700		1,600
	6380-5008	8	8	16	44	250		2,800





**SF3606, S3607, SFP3606**

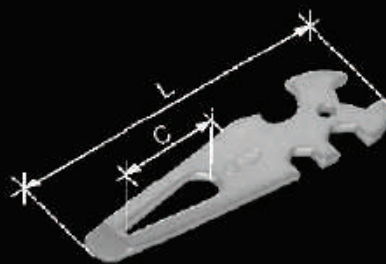
**Technical Data**

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI304 - DIN 1.4301/  
 AISI316 - DIN 1.4401  
 Surface treatment : SF3606 - "E.P." (Electro polished)  
 S3607 - "E.P." (Electro polished)  
 "M.P." (Mirror polished)

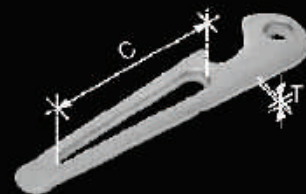
**Field of application**

Shackle keys - stamped are designed for application where quick tool is needed for a more secure tightening of shackle pin.



Shackle keys - cast are designed for application where more secure tightening of shackle pins is required.



**SF3606**  
Shackle key - stamped

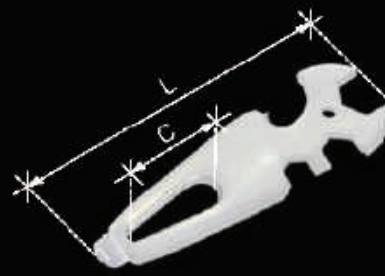


**S3607**  
Shackle key - cast


Item No.	SF3606	SIZE (mm)	C (mm)	L (mm)	T (mm)	
Material	SS304					
	4360-6321	32*100	31	100	2.5	700
Item No.	S3607	SIZE (mm)	C (mm)	L (mm)	T (mm)	
Material	SS316					
	6360-7455 (M.P.)	4.5*56	30	58	5.0	1,200
	6360-7787 (E.P.)	7*87	45	87	5.0	1,000



**SFP3606**  
Shackle key with plastic cover (Blue)



**SFP3606**  
Shackle key with plastic cover (White)

Item No.	SFP3606	SIZE (mm)	C (mm)	L (mm)	T (mm)		
Material	SS316						
	2360-6320	32*100(Blue)	31	100	2.5	250	3
	2360-6322	32*100(White)	31	100	2.5	250	3

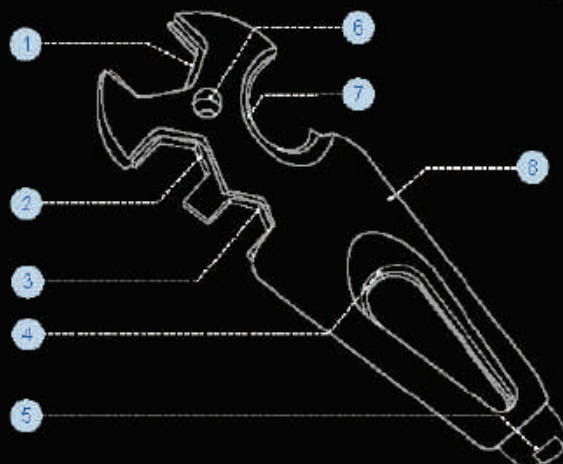


Shackle keys are designed specifically to withstand rugged use and harsh environment found at sea.

To keep your shackle key in good condition wash regularly in soapy water. This will avoid undesired build-up of salt.

**Functions:**

- 1 Bottle opener
- 2 Spanner
- 3 Flat screwdriver
- 4 Hole for lanyard



**Functions:**

- 1 13mm spanner
- 2 10mm spanner
- 3 8mm spanner
- 4 3-8mm spanner
- 5 Flat screwdriver
- 6 Hole for lanyard
- 7 Bottle opener
- 8 Protective cover



**S018**  
Swivel (eye and eye)

**S0181**  
Swivel (eye and jaw)

**S0181I**  
Swivel (eye and jaw with internal hexagon pin)



**Technical Data**

Casting material : A18304 - DIN 1.4308 / A18316 - DIN 1.4408  
 Production : S018 - Swivel - Cast  
 Surface treatment : "E.P." (Electro polished)

**Field of application**

Swivels eye and eye are designed for application where a quick swivel assembly with hook or quick link is expected.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics

Formo	S018		SIZE	ØA	B	L		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	4018-0004	6018-0004	4	4	11.0	50	1,200	450
	4018-0005	6018-0005	5	5	13.0	59	750	650
	4018-0006	6018-0006	6	6	14.7	66	500	1,200
	4018-0008	6018-0008	8	8	20.5	94	200	1,900
	4018-0009	6018-0009	9	9	22.0	102	150	3,000
	4018-0010	6018-0010	10	10	24.0	118	100	3,500
	4018-0013	6018-0013	13	13	31.0	152	50	5,000
	4018-0016	6018-0016	16	16	38.0	188	30	8,500
	4018-0019	6018-0019	19	19	42.0	223	20	10,000
	4018-0022	6018-0022	22	22	47.0	240	10	11,500
	4018-0025	6018-0025	25	25	63.0	294	6	13,000



**Technical Data**

Casting material : A18304 - DIN 1.4308 / A18316 - DIN 1.4408  
 Production : S0181 - Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

**Field of application**

Swivels eye and jaw are designed for application where quick assembly with only one end hook or quick link is expected.

Formo	S0181		SIZE	ØA	B	L		P	B.L. <sup>(2)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)		P B C	(kgs)
	4018-1006	6018-1006	6	6	12	66	500	2	1,200
	4018-1008	6018-1008	8	8	16	94	200	3	1,900
	4018-1010	6018-1010	10	10	20	118	100	n/a	3,500
	4018-1013	6018-1013	13	13	26	152	50	n/a	5,000
	4018-1016	6018-1016	16	16	32	188	25	n/a	8,500
	4018-1019	6018-1019	19	19	38	223	15	n/a	10,000



**Technical Data**

Casting material : A18304 - DIN 1.4308 / A18316 - DIN 1.4408  
 Production : S0181I - Pin - See Chart  
 Surface treatment : "E.P." (Electro polished)

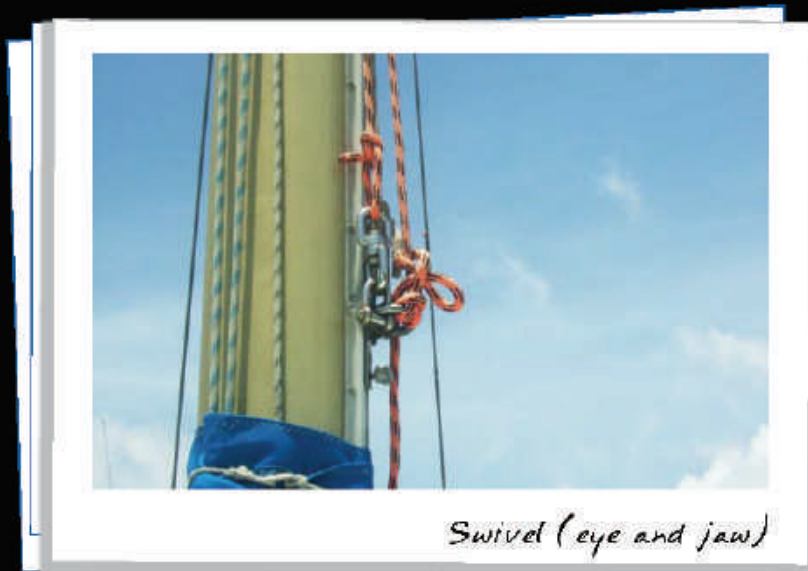
**Field of application**

Swivels with internal hexagonal pin are designed for application where prevention of malicious tampering is required.

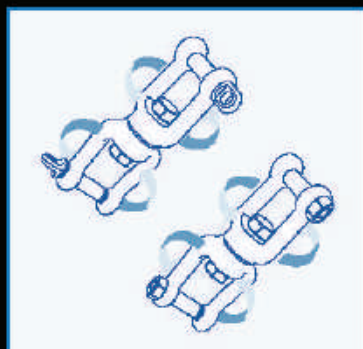
**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics

Formo	S0181I		SIZE	ØA	B	L	Pin		P	B.L. <sup>(2)</sup>
Material	SS316		(mm)	(mm)	(mm)	(mm)			P B C	(kgs)
	6018-1106	6	6	12	66	Forged	500	2	1,200	
	6018-1108	8	8	16	94	Forged	200	3	1,900	
	6018-1310	10	10	20	118	Cast	100	n/a	3,500	
	6018-1113	13	13	26	152	Cast	50	n/a	5,000	
	6018-1116	16	16	32	188	Cast	25	n/a	8,500	
	6018-1119	19	19	38	223	Cast	15	n/a	10,000	



Swivel (eye and jaw)



**M** S0182 Swivel (jaw and jaw)

**M** S0182I Swivel (jaw and jaw with internal hexagon pin)

**M** S0182-0840N Swivel (jaw and jaw with cotter nut pin)




### Technical Data

Casting material : AISI304 - DIN 1.4308 / AISI316 - DIN 1.4408  
 Forging material : AISI304 - DIN 1.4401 / AISI316 - DIN 1.4301  
 Production : S0182 - Swivel - Cast  
 Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Swivels (jaw and jaw) are designed for application where quick assembly on to closed end chains are expected.

Form	S0182		SIZE (mm)	ØA (mm)	B (mm)	L (mm)		P/P/C	B.L. <sup>(1)</sup> (kgs)
Material	SS304	SS316							
	4018-2006	6018-2006	6	6	12	66	400	2	1,200
	4018-2008	6018-2008	8	8	16	94	125	3	1,900
	4018-2010	6018-2010	10	10	20	118	80	n/a	3,500
	4018-2013	6018-2013	13	13	26	152	40	n/a	5,000
	4018-2016	6018-2016	16	16	32	188	25	n/a	8,500
	4018-2019	6018-2019	19	19	38	223	15	n/a	10,000




### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S0182I - Swivel - Cast  
 Pin - See Chart  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Swivels (jaw and jaw with internal hexagonal pin) are designed for application where malicious tampering are expected.

Form	S0182I		SIZE (mm)	ØA (mm)	B (mm)	L (mm)	Pin		P/P/C	B.L. <sup>(1)</sup> (kgs)
Material	SS316									
	6018-2106	6	6	12	66	Forged	400	2	1,200	
	6018-2108	8	8	16	94	Forged	200	3	1,900	
	6018-2110	10	10	20	118	Cast	80	n/a	3,500	
	6018-2113	13	13	26	152	Cast	40	n/a	5,000	
	6018-2116	16	16	32	188	Cast	25	n/a	8,500	
	6018-2119	19	19	38	223	Cast	15	n/a	10,000	



### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Forging material : AISI304 - DIN 1.4301  
 Production : S0182-0840N - Swivel - Cast  
 Pin - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

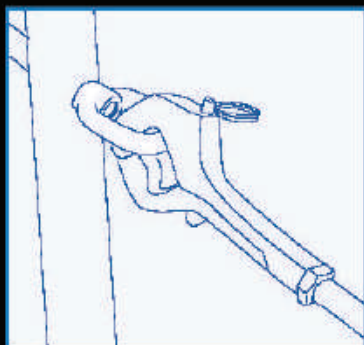
Swivels (jaw and jaw with cotter nut pin) are designed for application where a lot of wind and vibration is expected.


**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 3 load characteristics.

Form	S0182-0840N		SIZE (mm)	ØA (mm)	B (mm)	L (mm)		P/P/C	B.L. <sup>(1)</sup> (kgs)
Material	SS304								
	4018-2008	8	7,12	16	94	125			1,900





 S3062/E1 Swivel screw


 **S3062/E1**

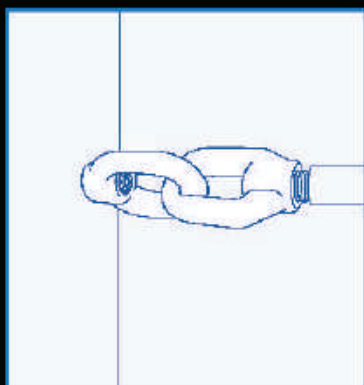
**Technical Data**

Casting material : AISI316 - DIN 1.4408  
 Production : S3062/E1 - Swivel - Cast  
 Surface treatment : "E.P." (Electro polished)

**Field of application**

Swivel screws are designed to be screw onto an external threaded rod for light lifting purpose. Swivel profile allows easy gripping.

Partno	S3062/E1	SIZE	C	ØD	L	M	
Material	SS316	(mm/inch)	(mm)	(mm)	(mm)	(thread)	
	6306-2108	8	15	6.5	37.5	M8	1,000
	6306-2536	5/16"UNF	15	6.5	37.5	5/16"UNF	1,000



 S3062/E2 Swivel cross screw


 **S3062/E2**

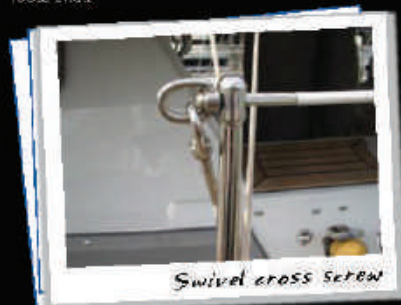
**Technical Data**

Casting material : AISI316 - DIN 1.4408  
 Production : S3062/E2 - Swivel - Cast  
 Surface treatment : "E.P." (Electro polished)

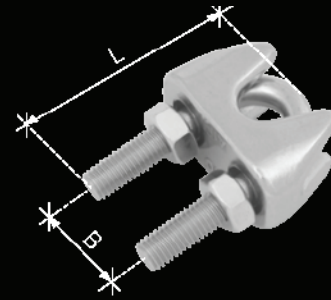
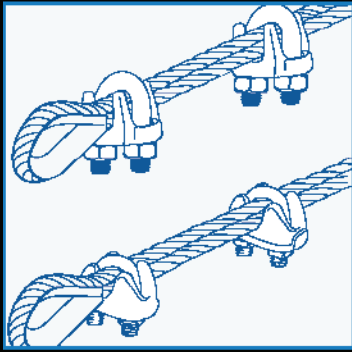
**Field of application**


Swivel cross screws are designed to be screw onto an external threaded rod for light lifting purpose. Cross swivel profile allows easy gripping of two loose ends.


Partno	S3062/E2	SIZE	C	ØD	L	M	
Material	SS316	(mm/inch)	(mm)	(mm)	(mm)	(thread)	
	6306-2208	8	15	6.5	37.5	M8	500
	6306-2526	5/16"UNF	15	6.5	37.5	5/16"UNF	500



# OPI Wire ropes & Thimbles



 **S260**  
Wire rope clip (AISI standard)

 **S261**  
Wire rope clip - light type

## S260


### Technical Data

Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : S260 - Clip - Cast  
U-bolt - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

Wire rope clips (AISI standard) are designed for application where a secure grip is needed. Two wire clip are expected per assembly.



Item no.	S260		SIZE	B	L	M	
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm/inch)	
4260-0150		<b>6260-0150</b>	1.5	5.0	16.0	M2	6,000
4260-0002		<b>6260-0002</b>	2.0	7.0	17.5	M3	3,000
4260-0003		<b>6260-0003</b>	3.0	8.0	21.0	M3	2,500
4260-0004		<b>6260-0004</b>	4.0	10.0	23.0	M4	1,200
4260-0005		<b>6260-0005</b>	5.0	12.0	29.0	M5	1,000
4260-0006		<b>6260-0006</b>	6.0	14.0	32.0	M6	600
4260-0008		<b>6260-0008</b>	8.0	17.5	40.0	M8	300
4260-0010		<b>6260-0010</b>	10.0	21.0	50.0	M10	200
4260-0012		<b>6260-0012</b>	12.0	26.0	62.0	M12	100
4260-0014		<b>6260-0014</b>	14.0	28.0	67.0	M12	100
4260-0016		<b>6260-0016</b>	16.0	32.0	78.0	M14	75
4260-0019		<b>6260-0019</b>	19.0	34.0	83.0	M14	50
4260-0022		<b>6260-0022</b>	22.0	40.0	96.0	5/8"	25
4260-0025		<b>6260-0025</b>	25.0	44.0	105.0	5/8"	20


## Light Type S261

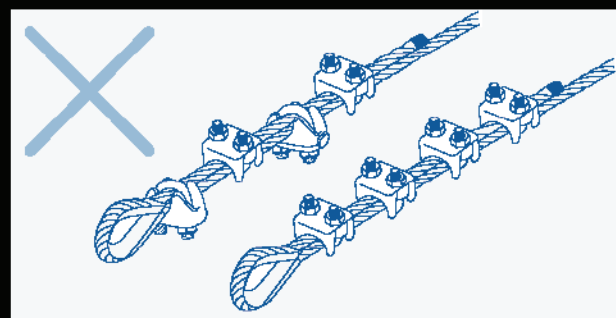
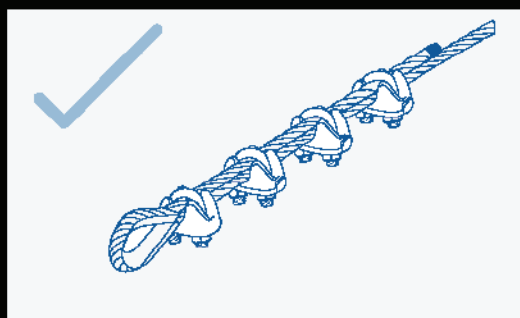
### Technical Data

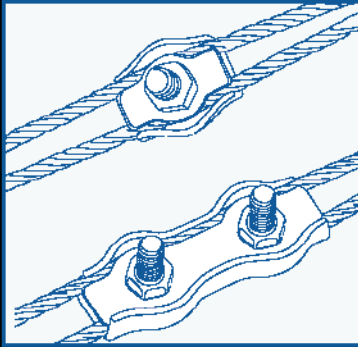
Casting material : AISI316 - DIN 1.4408  
Forging material : AISI316 - DIN 1.4401  
Production : S261 - Clip - Cast  
U-bolt - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

Wire rope clips - light type are designed for ropes who's tensioning application isn't as critical as of AISI standard. Two wire clip is expected per assembly.

Item no.	S261		SIZE	B	L	M	
Material	SS316		(mm)	(mm)	(mm)	(mm/inch)	
		<b>6261-0002</b>	2	7.0	17.5	M3	3,000
		<b>6261-0003</b>	3	8.0	21.0	M3	2,500
		<b>6261-0004</b>	4	10.0	23.0	M4	2,000
		<b>6261-0005</b>	5	12.0	25.0	M5	1,000
		<b>6261-0006</b>	6	13.8	32.0	M6	600
		<b>6261-0008</b>	8	16.0	35.0	M6	500
		<b>6261-0010</b>	10	20.0	44.0	M8	250
		<b>6261-0013</b>	13	25.0	55.0	M10	150
		<b>6261-0016</b>	16	28.0	65.0	M10	100
		<b>6261-0019</b>	19	34.0	75.0	M12	75
		<b>6261-0022</b>	22	36.0	83.0	M12	50
		<b>6261-0025</b>	25	41.0	94.0	M14	40
		<b>6261-0032</b>	32	50.0	112.0	5/8"	30





## SF511, SF512

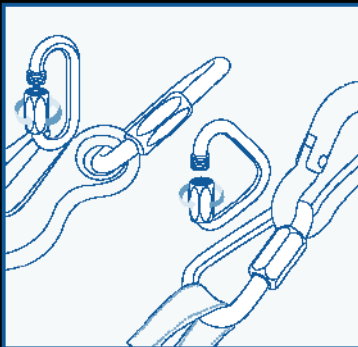
### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : SF511 - Clip- Forged  
 SF512 - Clip- Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Simplex clips are designed for wire rope who needs a simple loop setup. It is not designed for heavy tensioning applications.

Duplex clips are designed for wire rope who require a simple loop setup. Both screws must be securely tightened. Do not use in application where heavy load is expected.



## S7350, SF7350, S7360

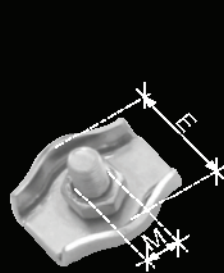
### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : S7350 - Link- Forged  
 SF7350 - Link- Forged  
 S7360 - Link- Forged  
 Surface treatment : "E.P." (Electro polished)

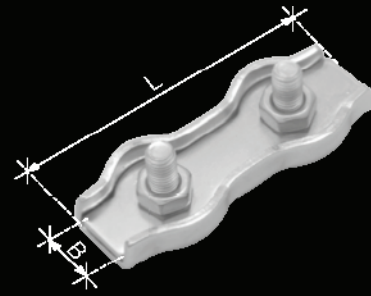
### Field of application

Quick links are designed for application where a quick connecting piece is needed between two chain eye or hook with eye end.

Triangle quick links are designed for application where a joint piece is needed between a synthetic rope and a hook or chain.



**SF511**  
Simplex clip



**SF512**  
Duplex clip

Item no.	SF511	SIZE	B	E	L	M	
Material	SS316	"for cable"	(mm)	(mm)	(mm)	(mm)	
F	6511-0020	2	4.0	8.2	15.0	M4	6,000
F	6511-0003	3	7.0	11.0	17.0	M4	4,000
F	6511-0004	4	9.2	13.0	21.0	M5	1,000
F	6511-0005	5	11.0	15.0	25.0	M5	2,000
F	6511-0006	6	13.0	18.5	30.0	M6	1,000
F	6511-0008	8	17.5	25.0	36.5	M8	600

Item no.	SF512	SIZE	B	E	L	M	
Material	SS316	"for cable"	(mm)	(mm)	(mm)	(mm)	
F	6512-0002	2	5.0	9.0	30.0	M4	2,000
F	6512-0003	3	7.0	11.4	34.0	M4	1,500
F	6512-0004	4	9.2	13.5	40.0	M5	700
F	6512-0005	5	11.0	16.0	50.0	M5	500
F	6512-0006	6	13.0	19.0	60.0	M6	400
F	6512-0008	8	17.5	25.5	75.0	M8	150



**S7350, SF7350**  
Quick link

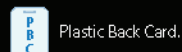


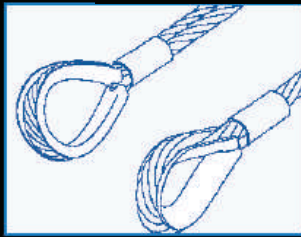
**S7360**  
Triangle quick link

Item no.	S7350	SIZE	B	ØD	L	Ø	PBC	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		
	6785-0035	3.5	10.0	3.5	35.0	4.5	2	1,600
	6735-0070	7.0	15.5	7.0	66.0	8.5	2	500
	6735-0009	9.0	18.5	9.0	80.0	11.0	2	250
	6735-0010	10.0	20.0	11.0	89.0	12.0	3	200
	6735-0012	12.0	23.0	12.0	104.5	15.0	3	100

Item no.	SF7350	SIZE	B	D	L	Ø	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
F	2735-0004	4	11.0	4	39.5	5.5	2,000
F	2735-0005	5	12.5	5	48.5	6.5	1,200
F	2735-0006	6	14.0	6	57.0	7.5	800
F	2735-0008	8	17.0	8	74.0	10.0	300

Item no.	S7360	SIZE	D	L	Ø	
Material	SS316	(mm)	(mm)	(mm)	(mm)	
	6736-0006	6	6	56	7.5	500
	6736-0010	10	10	87	12.0	150





**SF234U**  
Light thimbles



**SF414**  
Heavy thimbles



## SF234U, SF414

### Technical Data

Forging material : AISI316 - DIN 1.4901  
 Production : SF234U - Thimble - Forged  
 SF414 - Thimble - Forged  
 Surface treatment : "E.P." (Electro polished)

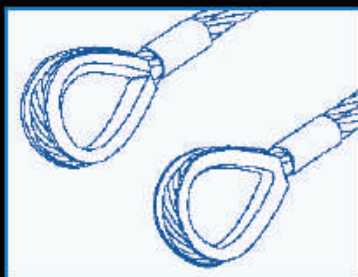
### Field of application

Light thimbles are designed for application where a secure loop for wire rope is needed.  
 Heavy thimbles are designed for applications where heavy loops and load are expected.



Material	SF234U	SIZE	B	L	T	Dia Ø Cable	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
	6234-0002	2	10.0	25.0	0.8	2	5,000
	6234-0003	3	12.5	28.5	1.0	3	3,500
	6234-0004	4	13.0	33.0	1.2	4	2,000
	6234-0005	5	15.5	36.5	1.2	5	1,500
	6234-0006	6	17.0	40.0	1.5	6	1,000
	6234-0008	8	22.5	51.0	1.5	8	500
	6234-1010	10	26.0	58.5	2.0	10	300
	6234-1012	12	31.0	68.0	2.0	12	300
	6234-1014	14	34.0	74.0	2.5	14	130
	6234-1016	16	37.5	83.0	2.5	16	100
	6234-1018	18	40.0	92.0	3.0	18	60
	6234-0020	20	45.0	104.0	3.0	20	50
	6234-0022	22	50.5	115.0	4.0	22	40
	6234-0025	25	54.0	125.0	4.0	25	30

Material	SF414	SIZE	B	L	T	Dia Ø Cable	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(inch)	(mm)
	6404-0316	3/16"	18.0	43.0	1.0	3/16"	1,000
	6414-0401	1/4"	23.3	56.0	1.5	1/4"	500
	6414-0615	5/16"	27.3	63.0	2.0	5/16"	300
	6414-0803	3/8"	29.0	73.0	2.5	3/8"	160
	6414-0201	1/2"	38.0	92.0	4.0	1/2"	80
	6414-0805	5/8"	45.0	106.0	4.0	5/8"	50
	6414-0403	3/4"	50.8	125.0	5.0	3/4"	25
	6414-0708	7/8"	57.0	139.8	6.0	7/8"	20
	6414-0001	1"	65.5	157.5	6.0	1"	14



## S2343, S2344

### Technical Data

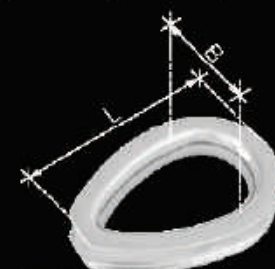
Casting material : AISI304 - DIN 1.4908  
 Production : S2343 - Thimble - Cast  
 S2344 - Thimble - Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Opened end thimbles are designed for application where extra heavy loads are expected.  
 Closed end thimbles are designed for application where extra heavy loads are expected. Closed end thimbles helps to avoid any deformation of thimbles.



**S2343**  
Opened end thimbles



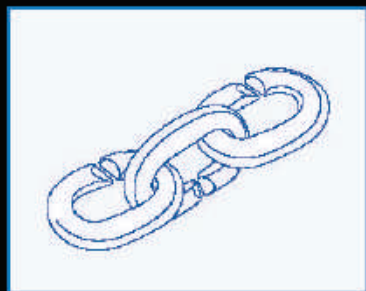
**S2344**  
Closed end thimbles

Material	S2343	SIZE	B	L	Dia Ø Cable	
Material	SS201	(mm)	(mm)	(mm)	(mm)	(mm)
	4234-3006	6	16.0	35.5	6	1,000
	4234-3008	8	22.4	47.3	8	650
	4234-3010	10	28.0	58.0	10	300
	4234-3012	12	34.0	67.0	12	200
	4234-3016	16	44.0	91.0	16	75
	4234-3020	20	54.0	112.0	20	40
	4234-3022	22	59.0	120.0	22	30
	4234-3025	25	68.0	134.0	25	20

Material	S2344	SIZE	B	L	Dia Ø Cable	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)
	4234-4002	2	8	21.0	2	5,000
	4234-4003	3	10	26.0	3	2,500
	4234-4004	4	12	32.0	4	1,500
	4234-4006	6	16	43.0	6	600
	4234-4008	8	24	58.5	8	300
	4234-4010	10	28	72.0	10	150
	4234-4012	12	35	86.0	12	75
	4234-4014	14	39	100.8	14	60
	4234-4016	16	45	110.0	16	40
	4234-4019	19	54	124.0	20	35
	4234-4022	22	60	130.0	22	25
	4234-4025	25	70	148.0	25	20







 **S10, S661**

**Technical Data**

Casting material : A131304 - DIN 1.4308  
A13116 - DIN 1.4408

Production : S10 - Link - Cast  
S661 - Link - Cast

Surface treatment : "E.P." (Electro polished)

**Field of application**

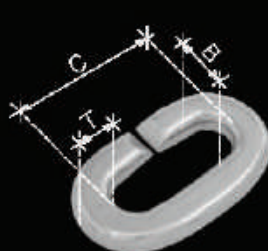
C-Links are designed for application where a simple elongation of chain are needed. C-Link are not designed for heavy loads.

Connecting links are designed for application where a elongation fitting is needed to extend an existing chain. Connecting links are not to be used as a permanent fixture.

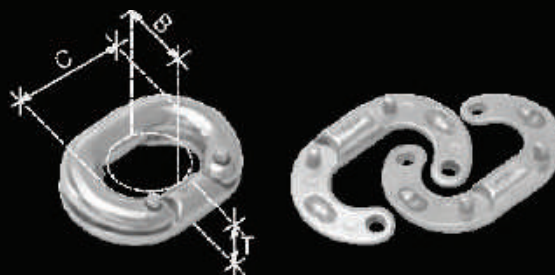
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1.44 of breaking load.

Refer to page M - class 2 load characteristics


**Instruction of S661**




 **S10**  
(C - link)



 **S661**  
Connecting link

Material		<b>S10</b>	SIZE	B	C	T		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	4100-0005	6100-0005	5	7,5	20	5,0	3,000	230
	4100-0006	6100-0006	6	9,0	24	6,0	1,500	300
	4100-0008	6100-0008	8	12,0	32	8,0	700	550
	4100-0009	6100-0009	9	13,5	36	9,0	500	750
	4100-0010	6100-0010	10	15,0	40	10,0	300	850
	4100-0011	6100-0011	11	16,5	44	11,0	250	950
	4100-0013	6100-0013	13	19,5	52	13,0	150	1,400
	4100-0016	6100-0016	16	24,0	64	16,0	100	2,050
	4100-0019	6100-0019	19	28,5	76	19,0	50	2,500
	4100-0022	6100-0022	22	33,0	88	23,0	30	3,000
	4100-0025	6100-0025	25	37,5	100	26,5	20	4,750

Material		<b>S661</b>	SIZE	B	C	T		B.L. <sup>(1)</sup>
Material	SS316		(inch)	(mm)	(mm)	(mm)		(kgs)
	6661-0316		3/16"	8,5	17,00	5,0	3,000	550
	6661-0104		1/4"	10,5	20,80	6,0	1,250	800
	6661-0516		5/16"	12,0	24,00	8,0	600	1,450
	6661-0308		3/8"	15,0	28,25	9,5	400	1,900
	6661-0716		7/16"	16,5	32,50	11,0	250	2,550
	6661-0102		1/2"	18,5	36,75	12,5	200	3,200
	6661-0508		5/8"	24,0	48,00	16,0	100	5,500
	6661-0304		3/4"	28,5	56,50	19,0	50	8,000





**M** SWR 1x19  
Wire rope 1x19

## SWR 1x19

### Technical Data

Type of material : AISI316  
Construction : 1x19  
Type of lay : RHRL (Right hand regular lay)

### Field of application

316 Stainless Steel 1x19 wire is used primarily for a yacht standing rigging.

Forme	SWR 1x19	DIA	Length/Reel	App.wt	App.wt	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(m)	(kg/100m)	(kg/reel)	(Kgs)
	CX6119025	2.5	305	3.10	946	500
	CX6119030	3.0	305	4.46	13.60	720
	CX6119040	4.0	305	7.93	24.19	1,285
	CX6119050	5.0	305	12.40	37.82	2,000
	CX6119060	6.0	305	17.80	54.29	2,876
	CX6119080	8.0	305	31.70	96.69	4,640
	CX6119100	10.0	305	49.70	150.98	7,560
	CX6119120	12.0	305	71.30	217.47	10,890



**M** SWR 7x7  
Wire rope 7 x7

## SWR 7x7

### Technical Data

Type of material : AISI316  
Construction : 7x7  
Type of lay : RHRL (Right hand regular lay)

### Field of application

Stainless Steel 7x7 wire rope configuration provides an excellent balance between flexibility and strength.


**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - Class 6 load characteristics

Forme	SWR 7x7	DIA	Length/Reel	App.wt	App.wt	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(m)	(kg/100m)	(kg/reel)	(Kgs)
	CX6707020	2.0	305	1.57	4.79	235
	CX6707025	2.5	305	8.24	2.70	428
	CX6707030	3.0	305	3.54	10.60	612
	CX6707040	4.0	305	6.29	19.18	907
	CX6707050	5.0	305	9.83	29.98	1,418
	CX6707060	6.0	305	14.20	43.34	2,040
	6700-7605	8.0	305	25.20	76.86	3,632
	6700-7305	10.0	305	39.30	119.87	5,175
	6700-7235	12.0	305	56.70	172.94	7,445
	6700-7801	1/8"	305	2.80	8.54	612
	6700-7325	5/32"	305	4.30	13.12	907
	6700-7163	3/16"	305	6.20	18.91	1,418
	6700-7401	1/4"	305	10.60	32.33	2,845
	6700-7165	5/16"	305	16.70	50.94	4,185





 **SWR 7x19**  
Wire rope 7x19

 **SWR 7x19**

**Technical Data**

Type of material : AISI316  
Construction : 7x19  
Type of lay : RHRL (Right hand regular lay)

**Field of application**

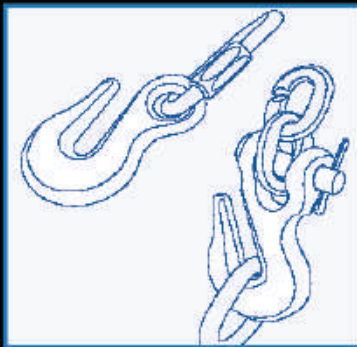
Stainless steel 7x19 wire rope configuration provides the most flexible solution for applications where many tight cornering of wire rope is expected.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 6 load characteristics



Part no.	SWR 7x19	DIA	Length/Reel	App w.t	App w.t	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(m)	(kg/100m)	(kg/reel)	(kgs)
	CX671-9020	2.0	305	1.70	5.19	200
	CX671-9025	2.5	305	2.70	8.24	378
	CX671-9030	3.0	305	3.42	10.43	544
	CX671-9040	4.0	305	6.09	18.58	959
	CX671-9050	5.0	305	9.52	29.04	1,509
	CX671-9060	6.0	305	13.80	42.09	2,181
	CX671-9080	8.0	305	24.30	74.12	3,874
	CX671-9100	10.0	305	38.10	116.21	5,375
	CX671-9120	12.0	305	54.80	167.14	7,750
	<b>6701-9801</b>	<b>1/8"</b>	305	2.90	8.85	544
	<b>6701-9325</b>	<b>5/32"</b>	305	4.50	13.73	959
	<b>6701-9163</b>	<b>3/16"</b>	305	6.50	19.83	1,309
	<b>6701-9401</b>	<b>1/4"</b>	305	11.00	33.55	3,440
	<b>6701-9165</b>	<b>5/16"</b>	305	17.30	52.77	5,375



**S323H**  
Grab hook (eye end)

**S330**  
Grab hook (clevis end)

## **S323H, S330**

### Technical Data

Casting material : AISI316 - DIN 1.4408  
Production : S323H - Hook - Cast  
S330 - Hook - Cast  
Pin : See chart

Surface treatment : "E.P." (Electro polished)

### Field of application

Grab hooks (eye end) are designed for application where heavy loads are expected. The small opening of the clevis limits functionality but increases its load strength.

Grab hooks (clevis end) are designed for heavy application where an open end is required for assembly onto a chain.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics

NUMERO	<b>S323H</b>	SIZE	Ø B	L	Ø		B.L. <sup>(1)</sup>
Part No	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)
	6323-2104	1/4"	13.0	77.6	8.7	250	2,900
	6323-2516	5/16"	14.5	90.0	11.1	125	3,700
	6323-2308	3/8"	17.0	103.6	12.7	80	5,300
	6323-2102	1/2"	22.5	136.2	16.6	40	7,000
	6323-2508	5/8"	27.0	169.1	19.8	20	13,000

NUMERO	<b>S330</b>	SIZE	Ø A	B	L	Ø		B.L. <sup>(2)</sup>
Part No	SS316	(inch)	(mm)	(mm)	(mm)	(mm)		(kgs)
	6330-0104	1/4"	9.5	11.1	79.6	8.7	150	2,100
	6330-0516	5/16"	11.5	12.7	96.0	11.1	90	3,100
	6330-0308	3/8"	12.7	15.0	103.6	12.7	60	4,000
	6330-0102	1/2"	17.0	19.0	143.7	16.6	30	7,350



**S325**  
Slip hook (eye end)

**S325X**  
Slip hook (eye end with safety latch)

## **S325, S325X**

### Technical Data


Casting material : AISI316 - DIN 1.4408  
Production : S325 - Hook - Cast  
S325X - Hook - Cast  
Surface treatment : "E.P." (Electro polished)


### Field of application

Slip hooks (eye end) are designed for light loads with versatility in mind. The open hook system allows easy loading and unloading of lifted hook/chain systems. Slip hooks (eye end with safety latch) with safety latch are designed for application where a lot of movement may occur. Safety latch prevents accidental fall out of inserted hook/chain systems.

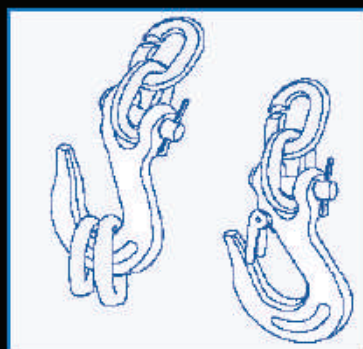
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics

NUMERO	<b>S325</b>	SIZE	Ø B	L	Ø		B.L. <sup>(1)</sup>
Part No	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)
	6325-0014	1/4"	13	91.0	22	200	1,500
	6325-0051	5/16"	16	108.0	24	100	2,900
	6325-0038	3/8"	18	124.5	28	60	3,200
	6325-0012	1/2"	24	161.0	37	30	5,400

NUMERO	<b>S325X</b>	SIZE	Ø B	L	Ø		B.L. <sup>(1)</sup>
Part No	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)
	6325-5104	1/4"	13	91.0	22	150	1,500
	6325-5516	5/16"	16	108.0	24	100	2,900
	6325-5308	3/8"	18	124.5	28	50	3,200
	6325-5121	1/2"	24	161.0	37	30	5,400





## S331, S331X

### Technical Data

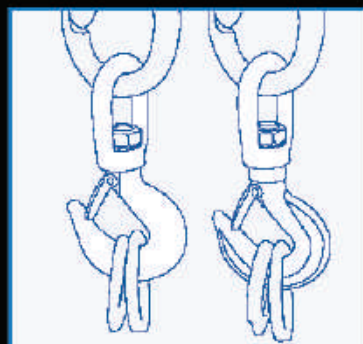
Casting material : AISI 316 - DIN 1.4408  
 Production : S331 - Hook - Cast  
                   Pin - See chart  
                   S331X - Hook - Cast  
                   Pin - See chart  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Slip hooks (clevis end) are designed for easy loading and unloading of hook/chain systems. Clevis end allows easy assembly to chain with out extra fittings. Slip hooks (clevis end with safety latch) are designed for quick assembly onto chain without extra fitting and provides security for accidental fall out of inserted chain/hook system.

**Note<sup>[1]</sup>** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



## S4322, S2511

### Technical Data

Casting material : AISI 316 - DIN 1.4408  
 Production : S4322 - Hook/Swivel - Cast  
                   S2511 - Hook/Swivel - Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Slip hooks (swivel end with safety latch) are designed for application where turning is expected. Safety latch prevents accidental fall out of inserted hook/chain system.

Heavy slip hooks (swivel end with safety latch) are designed for application where mid air turning of lifted load is expected. Safety latch prevents from accidental fall out of inserted chain/hook system.

**Note<sup>[2]</sup>** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics



**S331**  
Slip hook (clevis end)



**S331X**  
Slip hook (clevis end with safety latch)

Item no.	S331	SIZE	Ø A	B	O	L		B.L. <sup>[1]</sup>
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)		(kgs)

	6331-0104	1/4"	9	11.1	22.5	100.0	120	2,000
	6331-0516	5/16"	11	12.7	24.5	112.0	70	3,100
	6331-0308	3/8"	12	15.0	30.0	131.5	40	4,000
	6331-0102	1/2"	16	19.0	36.0	165.5	25	5,600

Item no.	S331X	SIZE	Ø A	B	O	L		B.L. <sup>[1]</sup>
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)		(kgs)

	6331-1104	1/4"	9	11.1	22.5	100.0	125	2,000
	6331-1516	5/16"	11	12.7	24.5	112.0	70	3,100
	6331-1308	3/8"	12	15.0	30.0	131.5	40	4,000
	6331-1102	1/2"	16	19.0	36.0	165.5	25	5,600



**S4322**  
Slip hook (swivel end with safety latch)



**S2511**  
Heavy slip hook (swivel end with safety latch)

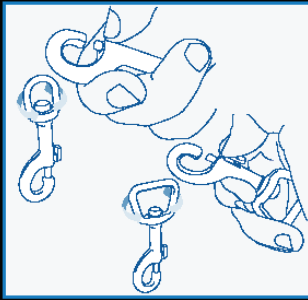
Item no.	S4322	SIZE	B	L	O		B.L. <sup>[2]</sup>
Material	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)

	6432-2104	1/4"	22.0	119.0	22.5	100	1,700
	6432-2516	5/16"	27.5	141.5	24.0	75	2,600
	6432-2308	3/8"	28.0	160.5	28.5	40	3,850
	6462-2102	1/2"	35.7	199.5	36.0	20	5,600

Item no.	S2511	SIZE	B	L	O		B.L. <sup>[2]</sup>
Material	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)

	6251-1001	1"	28.0	150.0	23.5	75	2,000
	6251-1114	1.1/4"	35.7	198.0	29.5	25	4,000





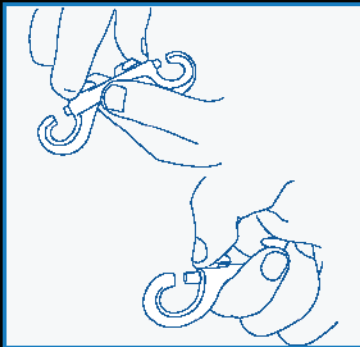
**S225, S225SQ**

### Technical Data

Casting material : AISI304 - DIN 1.4308/  
 AISI316 - DIN 1.4408  
 Production : S225 - Snap - Cast  
 : S225SQ - Snap - Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Bolt snaps (swivel end) are designed for a quick and easy attachment of an object such as key. The round swivel end allows fitting onto a chain. Bolt snap (square swivel end) allow the snap to be knitted onto synthetic textiles.



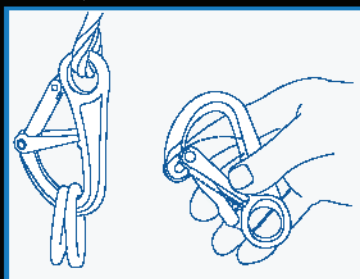
**S161, S162, S163**  
**S231, S232, S245**

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S161, S162, S163 - Snap - Cast  
 : S231, S232, S245 - Snap - Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Bolt snaps (double snap end) are designed for application where a quick and easy fitting is needed to join two loose chains.  
 Bolt snaps (hook end) are designed for application where a simple fitting is needed to join two loose chain or ropes.



**S2432**

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S2432 - Hook - Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application

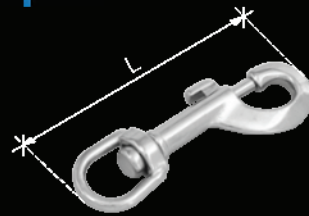
Double locking safety hooks are designed for application where dose contact with hook is expected. Double safety avoids accidental opening of latch.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics

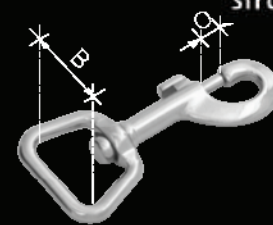
**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



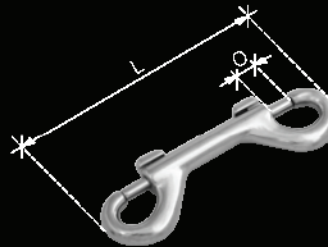
**S225**  
 Bolt snap (swivel end)

Rem.no.	<b>S225</b>	SIZE (inch)	B (mm)	L (mm)	O (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS304	SS316					
4225-0308	<b>6225-0308</b>	3/8"	11.0	63	6.3	1,000	180
4225-0102	<b>6225-0102</b>	1/2"	13.5	75	7.0	1,000	250
4225-0508	<b>6225-0508</b>	5/8"	17.0	85	8.0	500	650
4225-0304	<b>6225-0304</b>	3/4"	20.5	91	8.0	500	650
4225-1104	<b>6225-1104</b>	1 1/4"	33.0	120	13.7	170	550



**S225SQ**  
 Bolt snap (square swivel end)

Rem.no.	<b>S225SQ</b>	SIZE (inch)	B (inch)	L (mm)	O (mm)		B.L. <sup>(2)</sup> (kgs)
Material	SS316						
6225-1318	<b>1"3.1/8"</b>	1"	80	7.0	500	180	



**S161, S162, S163**  
 Bolt snap (double snap end)

Rem.no.	<b>S161</b>	SIZE (inch)	L (mm)	O (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316					
6161-0312	<b>3.1/2"</b>	90	6.5	500	180	

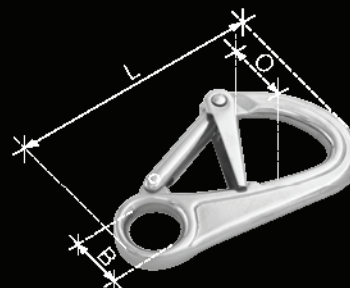
Rem.no.	<b>S162</b>	SIZE (inch)	L (mm)	O (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316					
6162-0004	<b>4"</b>	100	10	400	350	

Rem.no.	<b>S163</b>	SIZE (inch)	L (mm)	O (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316					
6163-0434	<b>4.3/4"</b>	120	11.5	300	360	

Rem.no.	<b>S231</b>	SIZE (inch)	L (mm)	O (mm)	O1 (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316						
6231-3102	<b>3.1/2"</b>	90	10	8	500	190	

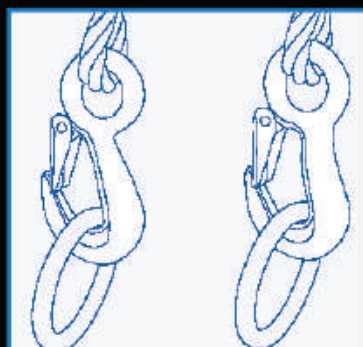
Rem.no.	<b>S232</b>	SIZE (inch)	L (mm)	O (mm)	O1 (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316						
6232-4140	<b>4.1/4"</b>	105	10	9.5	200	240	

Rem.no.	<b>S245</b>	SIZE (inch)	L (mm)	O (mm)	O1 (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316						
6245-5000	<b>5"</b>	130	14	13	200	375	



**S2432**  
 Double locking safety hook

Rem.no.	<b>S2432</b>	SIZE (mm)	ØB (mm)	L (mm)	O (mm)			B.L. <sup>(1)</sup> (kgs)
Material	SS316							
6243-1019	<b>19</b>	20	109	20	125	3	1,550	



## S2311, S461

### Technical Data

Casting material : AISI304 - DIN 1.4308 / AISI316 - DIN 1.4408

Production : S2311 - Hook - Cast / S461 - Hook - Cast

Surface treatment : "E.P." (Electro polished)

### Field of application

Safety snap hooks (with safety latch) are designed for light loads with wide open hook for insert. Safety latch prevents accidental fall out of inserted chain/hook system.

Heavy safety snap hooks (with safety latch) are designed for heavier loads than standard design. Wide open hook makes insertion of hook/chain easy. Safety latch prevents accidental fall out of inserted systems.



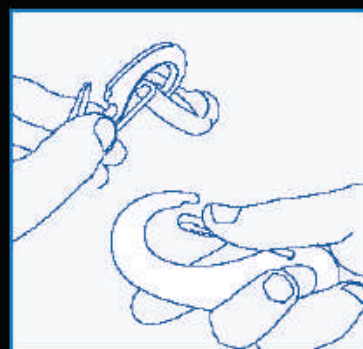
**S2311**  
Safety snap hook (with safety latch)



**S461**  
Heavy safety snap hook (with safety latch)

In mm		<b>S2311</b>	SIZE (mm)	Ø B (mm)	L (mm)	O (mm)		PBC	B.L. <sup>(1)</sup> (kgs)
Material	SS304	SS316							
	4231-1019	<b>6231-1019</b>	19	19	100	30.4		3	750
	4231-1028	<b>6231-1028</b>	28	28	119	23.8		3	1,000

In mm		<b>S461</b>	SIZE (mm)	Ø B (mm)	L (mm)	O (mm)		PBC	B.L. <sup>(1)</sup> (kgs)
Material	SS316								
	<b>6461-0090</b>	90	19	90	26	250			1,100



**S2470**  
Spring snaps (eye end)



**S2471**  
Spring snaps (hook end)

## S2470, S2471

### Technical Data

Casting material : AISI304 - DIN 1.4308 / AISI316 - DIN 1.4408

Production : S2470 - Snap - Cast / S2471 - Snap - Cast

Surface treatment : "E.P." (Electro polished)

### Field of application

Spring snaps (eye end) are designed as a quick and easy fitting for assembly with keys or other objects. Spring snaps (hook end) are designed to be hammered in for sailing cloth.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics

In mm		<b>S2470</b>	SIZE (mm)	B (mm)	L (mm)	O (mm)		PBC	B.L. <sup>(1)</sup> (kgs)
Material	SS304	SS316							
	--	<b>6247-0032</b>	32	4.0	32	7		n/a	80
	4247-0050	<b>6247-0050</b>	50	6.6	50	10		2	220
	4247-0070	<b>6247-0070</b>	70	9.0	70	14		3	500
	4247-0100	<b>6247-0100</b>	100	13.8	98	20		3	900

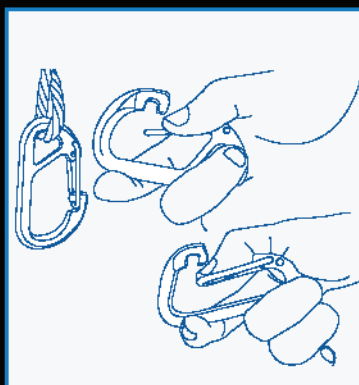
In mm		<b>S2471</b>	SIZE (mm)	B (mm)	L (mm)	O (mm)		PBC	B.L. <sup>(1)</sup> (kgs)
Material	SS304								
	4247-1050	<b>50</b>	8.5	50	12.8	1,000			250
	4247-1065	<b>65</b>	8.7	65	16.6	500			350
	4247-1090	<b>90</b>	11.5	90	22.8	150			700



Piece per carton.



Plastic Back Card.



## SF2431, SF2431X

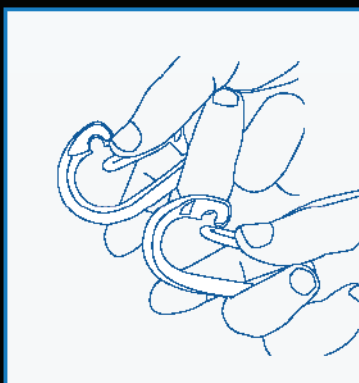
### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF2431 - Snap - Forged  
 SF2431X - Snap - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Spring snaps - type2 (circular hook with opened end) provides a quick and easy solution to joining two wire or ropes.

Spring snaps - type2 (circular hook with welded bar end) with welded end bar provides a quick and easy solution to joining of two wire or eye ends. Welded end bars provides the location for knitting of leather or synthetic rope.



## SF24302, SF24302B

### Technical Data

Forging material : AISI304 - DIN 1.4301/  
 AISI316 - DIN 1.4401  
 Production : SF24302 - Snap - Forged  
 SF24302B - Snap - Forged  
 Surface treatment : "E.P." (Electro polished)

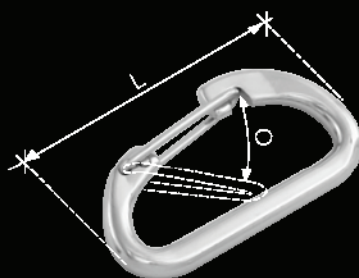
### Field of application

Spring snaps - type1 (circular hook with opened end) provides an easy fitting to joining of two ropes or eye ends fittings.

Spring snaps (circular hook with an angled latch) with angular pin provides a more comfort opening of the spring during operation.

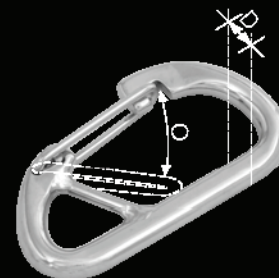
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV class 2 load characteristics



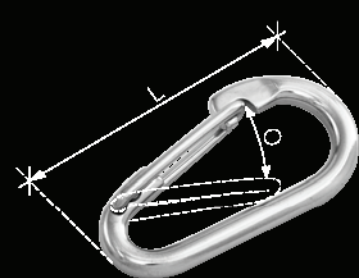
**SF2431**  
 Spring snaps - type2  
 (circular hook with opened end)

Item no.	SF2431	SIZE	Ø D	L	Ø		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	6243-1006	6	6	60	15	1,000	800
	6243-1008	8	8	80	22	350	1,450
	6243-1010	10	10	100	25	150	2,850
	6243-1012	12	12	120	28	100	3,600



**SF2431X**  
 Spring snaps - type2  
 (circular hook with welded bar end)

Item no.	SF2431X	SIZE	Ø D	L	Ø		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	6243-1106	6	6	60	15	500	800
	6243-1108	8	8	80	22	350	1,650
	6243-1110	10	10	100	25	150	2,850
	6243-1112	12	12	120	28	100	3,600



**SF24302**  
 Spring snaps - type1  
 (circular hook with opened end)

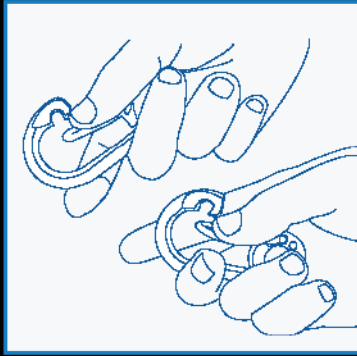


**SF24302B**  
 Spring snaps  
 (circular hook with angled latch)

Item no.	SF24302		SIZE	Ø D	L	Ø		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	4243-0206	6243-0206	6	6	60	11.5	700	830
	4243-0208	6243-0208	8	8	80	16.0	350	1,600
	4243-0210	6243-0210	10	10	100	19.0	150	2,500
	4243-0212	6243-0212	12	12	120	28.0	100	3,300

Item no.	SF24302B		SIZE	Ø D	L	Ø		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	4243-1206	6243-1206	6	6	60	14	700	830
	4243-1208	6243-1208	8	8	80	20	350	1,600
	4243-0211	6243-0211	10	10	100	24	150	2,500
	4243-1212	6243-1212	12	12	120	29	100	3,300





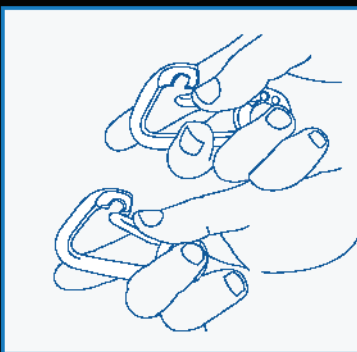
## SF24301, SF24301B

### Technical Data

Forging material : AISI304 - DIN 1.4301/  
 AISI316 - DIN 1.4401  
 Production : SF24301 - Snap - Forged  
 SF24301B - Snap - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Spring snaps (circular hook with eye end) provides a quick and easy fitting to be linked with chain or other hooks.  
 Spring snaps (circular hook angled latch with eye end) is designed for comfort to the opening of the latch while eye end for assembly onto rope or quick links.



## SF2430, SF2430B

### Technical Data

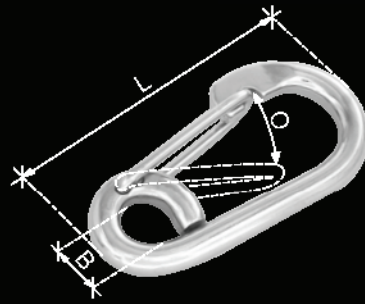
Forging material : AISI304 - DIN 1.4301/  
 AISI316 - DIN 1.4401  
 Production : SF2430 - Snap - Forged  
 SF2430B - Snap - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Spring snaps (angled hook with eye end) are designed for application where minimum movement of hook is required during loading process.  
 Spring snaps (angled hook and latch with eye end) are designed for comfort during opening of latch while angled hook is designed to minimize movement during loading process.

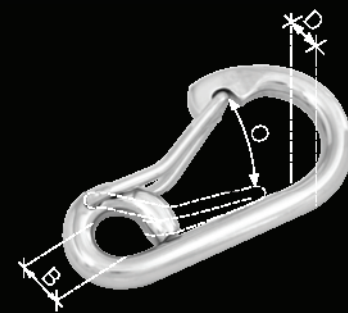
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics



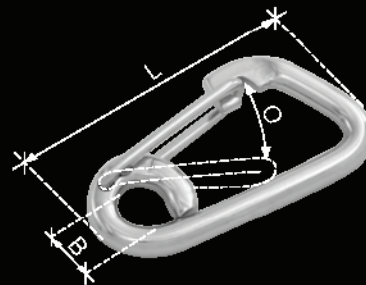
**SF24301**  
 Spring snaps  
 (circular hook with eye end)

Item no.	SF24301		SIZE	B	Ø D	L	O		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
4243-0106	6243-0106		6	10	6	60	13	600	830
4243-0108	6243-0108		8	12	8	80	18	300	1,600
4243-0110	6243-0110		10	15	10	100	21	150	2,500
4243-0112	6243-0112		12	19	12	120	27	100	3,300



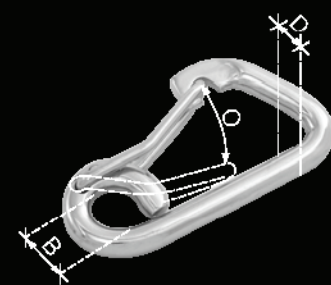
**SF24301B**  
 Spring snaps  
 (circular hook, angled latch with eye end)

Item no.	SF24301B		SIZE	B	Ø D	L	O		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
4243-0126	6243-0126		6	10	6	60	13	600	830
4243-0128	6243-0128		8	12	8	80	18	300	1,600
4243-0121	6243-0121		10	15	10	100	21	150	2,500
4243-0122	6243-0122		12	19	12	120	27	100	3,300



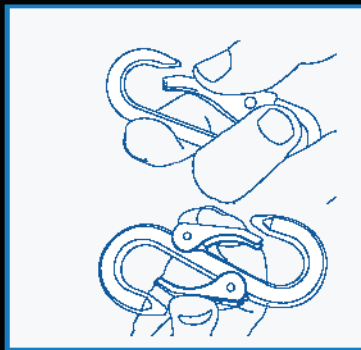
**SF2430**  
 Spring snaps  
 (angled hook with eye end)

Item no.	SF2430		SIZE	B	Ø D	L	O		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
4243-0006	6243-0006		6	10	6	61	12.5	500	750
4243-0008	6243-0008		8	12	8	81	17.0	300	1,750
4243-0010	6243-0010		10	15	10	102	23.5	150	2,250
4243-0012	6243-0012		12	19	12	122	28.0	100	3,650



**SF2430B**  
 Spring snaps  
 (angled hook and latch with eye end)

Item no.	SF2430B		SIZE	B	Ø D	L	O		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
4243-0306	6243-0306		6	10	6	61	12.5	500	750
4243-0308	6243-0308		8	12	8	81	17.0	300	1,750
4243-0310	6243-0310		10	15	10	102	23.5	150	2,250
4243-0312	6243-0312		12	19	12	122	28.0	100	3,650



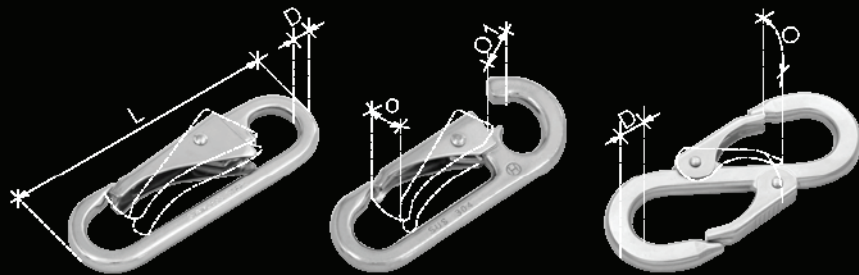
## S247A, S247H, SF878

### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Forging material : AISI304 - DIN 1.4301  
 Production : S247A - Snap - Cast  
 S247H - Snap - Cast  
 SF878 - Snap - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Chain snaps (closed end) are designed to be used for a quick and easy assembly to two separate loose chains.  
 Chain snaps (opened end) are designed for quick and easy linking of two separate loose chains.  
 Chain snaps (double hook end) are designed for a quick and easy setup with two loose chains or fittings.




**Metric** S247A  
Chain snaps  
(closed end)

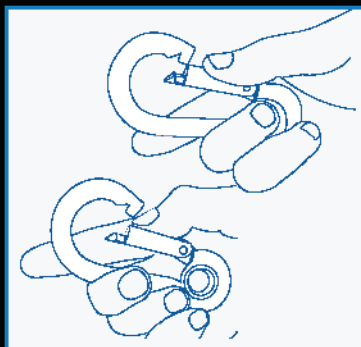
**Metric** S247H  
Chain snaps  
(opened end)

**Metric** SF878  
Chain snaps  
(double hook end)

Item no.	S247A	SIZE (mm)	D (mm)	L (mm)	O (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS304						
	4247-7206	6	6	80	11	500	120

Item no.	S247H	SIZE (mm)	L (mm)	O (mm)	O1 (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS304						
	4247-7106	6	75	10.3	8	600	180

Item no.	SF878	SIZE (mm)	D (mm)	L (mm)	O (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS304						
	4878-0006	6	6.8	75.2	12	600	300
	4878-0008	8	9.4	98.0	14	350	550



## S2450, SF2450 S2450X, SF2450X

### Technical Data

Forging material : AISI316 - DIN 1.4408  
 Production : S2450, SF2450 - Snap - Forged  
 S2450X, SF2450X - Snap - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Snap hooks are the standard in use for the assembly of two loose end chain or ropes.  
 Snap hooks (with eye) are the standard in use to link two loose chain or ropes. Eye end provides extra security for synthetic ropes or wires.



**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.



Referto page IV - class 2 load characteristics







**Metric** S2450, SF2450  
Snap hook

**Metric** S2450X, SF2450X  
Snap hook (with eye)

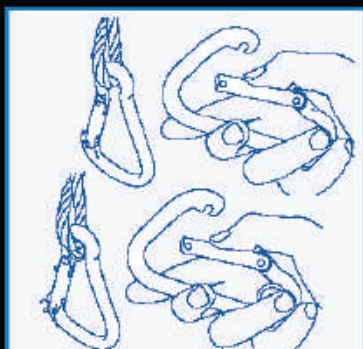
Item no.	S2450	SIZE (mm)	Ø B (mm)	Ø D (mm)	L (mm)	O (mm)			B.L. <sup>(1)</sup> (kgs)
Material	SS316								
	6245-0004	4	6.6	4.5	33	11.5	2,500	2	100
	6245-0007	7	9.5	8.0	56	20.5	600	n/a	400
	6245-0009	9	12.8	9.0	72	26.5	250	n/a	700
	6245-0011	11	19.0	11.0	98	35.0	120	n/a	900
	6245-0012	12	22.0	11.0	116	40.0	100	n/a	1,000
	6245-0013	13	22.0	13.0	134	46.0	70	3	1,200

Item no.	SF2450	SIZE (mm)	Ø B (mm)	Ø D (mm)	L (mm)	O (mm)			B.L. <sup>(1)</sup> (kgs)
Material	SS316								
	2245-0005	5	8	5	40	16.0	1,500	2	160
	2245-0060	6	10	6	48	18.0	1,000	2	300
	2245-0080	8	13	8	64	23.5	300	3	600
	2245-0100	10	17	10	80	30.0	200	n/a	800

Item no.	S2450X	SIZE (mm)	Ø B (mm)	Ø D (mm)	L (mm)	O (mm)			B.L. <sup>(1)</sup> (kgs)
Material	SS316								
	6245-0204	4	6.5	4.5	33	11.5	2,500	1	100
	6245-0207	7	8.0	8.0	56	20.5	550	n/a	400
	6245-0209	9	11.0	9.0	72	26.5	300	n/a	700
	6245-0211	11	18.0	11.0	98	35.0	120	n/a	900
	6245-0212	12	20.0	11.0	116	40.0	100	n/a	1,000
	6245-0213	13	20.0	13.0	134	46.0	70	3	1,200

Item no.	SF2450X	SIZE (mm)	Ø B (mm)	Ø D (mm)	L (mm)	O (mm)			B.L. <sup>(1)</sup> (kgs)
Material	SS316								
	2245-0205	5	7	5	40	16.0	1,000	2	160
	2245-0206	6	9	6	48	18.0	800	2	300
	2245-0208	8	12	8	64	23.5	400	3	600
	2245-0210	10	16	10	80	30.0	200	n/a	800





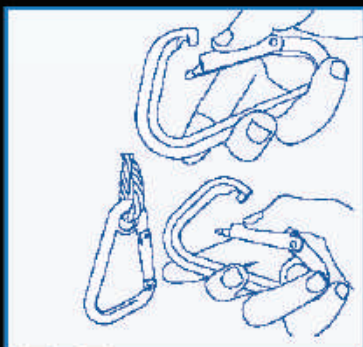
## S2490, S2490X

### Technical Data

Forging material: AISI 316 - DIN 1.4401  
 Production: S2490 - Snap - Forged  
 S2490X - Snap - Forged  
 Surface treatment: "E.P." (Electro polished)

### Field of application

Heavy spring snaps (angled hook) provides a larger opening for more assembly of hooks and eye ends in the same hook. Heavy spring snaps (angled hook with eye end) provide a larger opening as well as space for more fittings of hook and eye end to be assembled. Eye end allows secure draping of synthetic rope or wire ropes.



## S369, S369X

### Technical Data

Casting material: AISI 316 - DIN 1.4401  
 Production: S369 - Snap - Cast  
 S369X - Snap - Cast  
 Surface treatment: "E.P." (Electro polished)

### Field of application


Locking snaps (angled hook) are designed for application where minimum axial movement is required during loading process.

Locking snaps (angled hook with eye end) are designed for application where minimum axial movement is required during loading process.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics



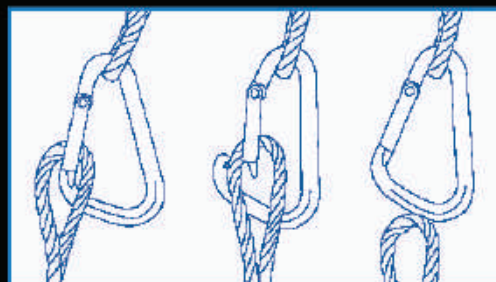
 **S2490**  
Heavy spring snaps  
(angled hook)


Forma	<b>S2490</b>	SIZE	Ø D	L	Ø		B.L. <sup>(1)</sup>
Materiał	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	6249-0009	9	9	90	18	n/a	1,000

Forma	<b>S2490X</b>	SIZE	Ø B	Ø D	L	Ø		B.L. <sup>(1)</sup>
Materiał	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	6249-0109	9	11	9	90	18	n/a	1,000



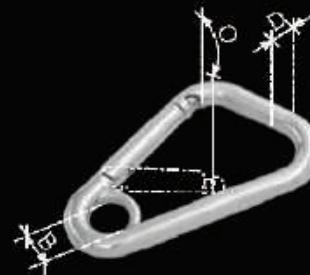
Be careful the wire rope slide out from the snap




 **S369**  
Locking snaps  
(angled hook)

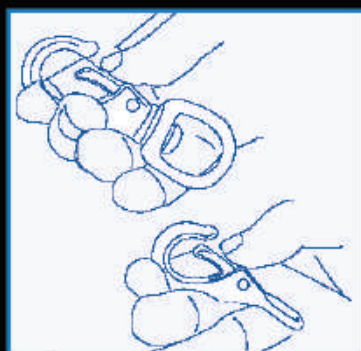
Forma	<b>S369</b>	SIZE	Ø D	L	Ø		B.L. <sup>(1)</sup>
Materiał	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	6369-0110	11	11	108	30	125	1,850

Forma	<b>S369X</b>	SIZE	Ø B	Ø D	L	Ø		B.L. <sup>(1)</sup>
Materiał	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	6369-1111	11	16	11	108	30	125	1,850



 **S369X**  
Locking snaps  
(angled hook with eye end)





## S249, S251

### Technical Data

Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Production : S249 - Snap - Cast  
S251 - Snap - Cast  
Surface treatment : "E.P." (Electro polished)

### Field of application

Eye snaps (fixed ring) are designed for application where a rigid eye end to be strap on to leather belt and a wide open hook for easy insertion is required. Eye snaps (swivel end) are designed specifically for flexibility in use in multiple settings.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics



## S830, S840

### Technical Data

Casting material : AISI304 - DIN 1.4308  
Production : S830 - Snap - Cast  
S840 - Snap - Cast  
Surface treatment : "E.P." (Electro polished)

### Field of application

Light eye snaps (swivel end) provides a quick and easy solution to a snap fitting. Swivel eye end provides maximum flexibility. Eye snaps (rectangular swivel end) provides the functionality of a thumb opening with square axiels for knitting of synthetic or leather straps.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



**M** S249  
Eye snaps (fixed ring)



**M** S251  
Eye snaps (swivel end)

Part no.		S249		SIZE	Ø B	L	O		B.L. (1)
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)	(kgs)		
	4249-0000	6249-0000	0	10	53.5	10.0	1,000	160	
	4249-0001	6249-0001	1	16	73.0	15.0	500	200	
	4249-0002	6249-0002	2	19	81.5	17.0	400	300	
	4249-0003	6249-0003	3	19	98.0	23.5	200	450	

Part no.		S251		SIZE	Ø B	L	O		B.L. (1)
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4251-0000	6251-0000	0	16.5	69.0	10.0	600	200	
	4251-0001	6251-0001	1	19.5	85.0	13.0	500	170	
	4251-0002	6251-0002	2	20.5	99.0	15.5	300	250	
	4251-0003	6251-0003	3	19.5	117.5	20.5	200	340	



**J** S830  
Light eye snaps (swivel end)

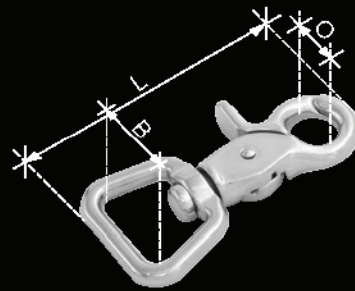
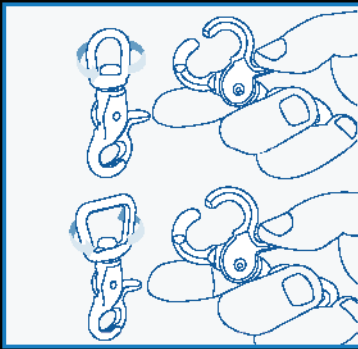


**J** S840  
Eye snaps (rectangular swivel end)

Part no.		S251		SIZE	Ø B	L	O		B.L. (1)
Material	SS304		(inch)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4830-0308		3/8"	11.0	55	9.0	1,000	180	
	4830-0102		1/2"	13.5	70	11.5	600	240	
	4830-0508		5/8"	17.0	83	14.0	500	325	
	4830-0304		3/4"	20.5	89	14.0	450	325	

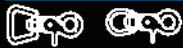
Part no.		S840		SIZE	Ø B	L	O		B.L. (1)
Material	SS304		(inch)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4840-0102		1/2"	13	60	6.0	600	50	





**S5014**  
Tiger snaps (rectangular swivel end)

**S5013**  
Tiger snaps (swivel end)



## S5014, S5013

### Technical Data

Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Production : S5014 - Snap - Cast  
S5013 - Snap - Cast

Surface treatment : "E.P." (Electro polished)

### Field of application

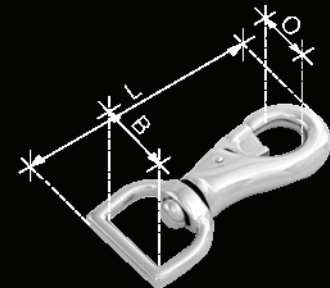
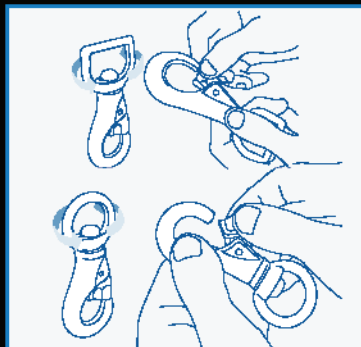
Tiger snaps (rectangular swivel end) combines the maximum opening of hook with rectangular swivel for knitting of leather or synthetic straps. Tiger snaps (swivel end) provides the maximum opening of snaps during operation. Swivel end extends its flexibility.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics

Item no.	<b>S5014</b>		SIZE	Ø B	L	O		B.L. <sup>(1)</sup>
Material	SS304	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)
	4501-4001	6501-4001	1"	25.4	70	12	500	200

Item no.	<b>S5013</b>		SIZE	Ø B	L	O		B.L. <sup>(1)</sup>
Material	SS304	SS316	(inch)	(mm)	(mm)	(mm)		(kgs)
	4501-3102	6501-3102	1/2"	13.0	66.5	12	600	200
	4501-3508	6501-3508	5/8"	16.8	69.5	12	500	200



**S3142, S333**  
Bull snaps (eye swivel end)

**S3143, S334**  
Bull snaps (rectangular swivel end)



## S3142, S333, S3143, S334

### Technical Data

Casting material : AISI316 - DIN 1.4408  
Production : S3142 - Snap - Cast  
S333 - Snap - Cast  
S3143 - Snap - Cast  
S334 - Snap - Cast

Surface treatment : "E.P." (Electro polished)

### Field of application

Bull snaps (eye swivel end) are designed for heavy duty snap use. The latch is opened outwards with two finger operation. Large swivel allows extra assembly of chains and hooks to its swivel. Bull snaps (rectangular swivel end) provides the extra heavy duty application of a snap, with two finger operation latch pulled outward for accidental pushing. Square swivels provides for knitting of leather or synthetic belts.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

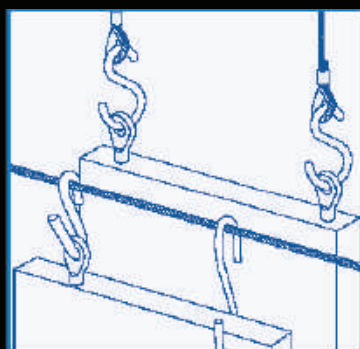
Refer to page IV - class 2 load characteristics

Item no.	<b>S3142</b>		SIZE	Ø B	L	O		B.L. <sup>(1)</sup>
Material	SS316		(inch)	(mm)	(mm)	(mm)		(kgs)
	6314-2874		7/8" X 4"	25.5	100	17	180	650

Item no.	<b>S333</b>		SIZE	Ø B	L	O		B.L. <sup>(1)</sup>
Material	SS316		(inch)	(mm)	(mm)	(mm)		(kgs)
	6333-0105		1" X 5"	30	130	20	100	1,080

Item no.	<b>S3143</b>		SIZE	Ø B	L	O		B.L. <sup>(1)</sup>
Material	SS316		(inch)	(mm)	(mm)	(mm)		(kgs)
	6314-3118		1.1/8" X 4"	29	130	20	100	1,080

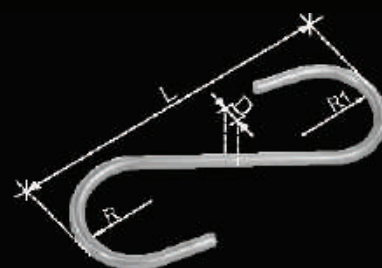
Item no.	<b>S334</b>		SIZE	Ø B	L	O		B.L. <sup>(1)</sup>
Material	SS316		(inch)	(mm)	(mm)	(mm)		(kgs)
	6334-1185		1.1/8" X 5"	29	120	20	100	1,080



**SF268**  
S-hook (type 1)



**SF875**  
S-hook (type 2)



**SF880**  
S-hook (type 3)

## SF268

### Technical Data

Forging material : AISI304 - DIN 1.4301  
Production : SF268 - Hook - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

S-hooks (type 1) are designed for a quick and easy setup for posters or tables to be hanging from a fixed wire rope or pipe.

Item No.	<b>SF268</b>	SIZE	Ø D	L	Ø R	Ø R1		B.L. (1)
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4268-0002	02019	2	19	3,75	3,75	15,000	15
	4268-0003	03030	3	30	4,50	8,00	2,500	25
	4268-0004	04036	4	36	6,00	9,50	1,500	50
	4268-0005	05043	5	43	7,00	10,50	1,300	120
	4268-0006	06050	6	50	7,50	12,50	800	140
	4268-0008	08067	8	67	10,00	16,50	400	250
	4268-1085	10085	10	85	12,50	20,50	200	435

## SF875

### Technical Data

Forging material : AISI304 - DIN 1.4301  
Production : SF875 - Hook - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

S-hooks (type 2) are designed for application where a quick and easy fitting is needed for hanging of a poster or label in a fixed wire.

Item No.	<b>SF875</b>	SIZE	Ø D	L	Ø R	Ø R1		B.L. (1)
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4875-0400	4	4	40	4,0	4,0	1,200	60
	4875-0005	5	5	50	4,5	4,5	900	150
	4875-0006	6	6	60	6,0	6,0	600	200
	4875-0008	8	8	75	8,0	8,0	300	400
	4875-0009	9	9	85	9,0	9,0	200	650
	4875-0010	10	10	100	9,0	9,0	150	800
	4875-0012	12	12	120	11,0	11,0	100	1,150

## SF880

### Technical Data

Forging material : AISI304 - DIN 1.4301  
Production : SF880 - Hook - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

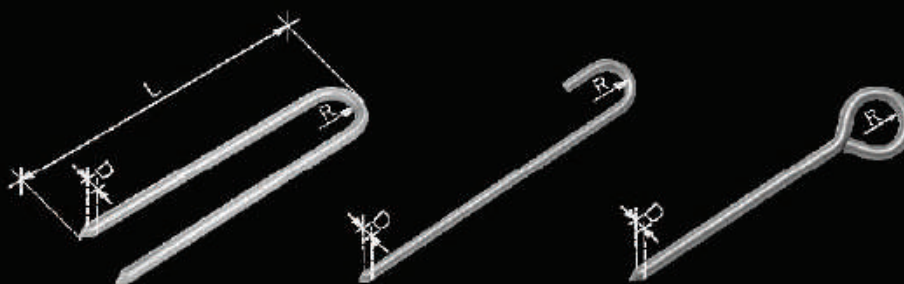
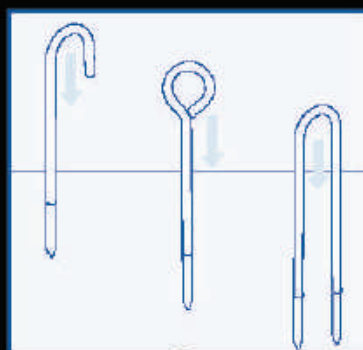
S-hooks (type 3) are designed for quick and easy hanging of poster or pictures onto a horizontal pole or wire.

Item No.	<b>SF880</b>	SIZE	Ø D	L	Ø R	Ø R1		B.L. (1)
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4880-6080	6080	6	80	12,5	12,5	600	150
	4880-6120	6120	6	120	17,5	17,5	250	100
	4880-6160	6160	6	160	22,5	22,5	150	90
	4880-6200	6200	6	200	22,5	22,5	150	80
	4880-6240	6240	6	240	22,5	22,5	130	80

**Note:** (1) Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics





**SFU**  
U-bar

**SFJ**  
J-hook

**SFH**  
Closed eye bar



## SFU

### Technical Data

Forging material : AISI304 - DIN 1.4301  
Production : SFU - Bar - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

U-bars are designed for insertion into soil or wood by hammering; this is used to secure a tent or other objects in place.

Referral	SFU	SIZE (mm)	Ø D (mm)	L (mm)	Ø R (mm)	
Material	SS304					
	4000-0032	6100	6	100	10.5	500
	4000-0033	6150	6	150	10.5	400
	4000-0034	6200	6	200	10.5	300




## SFJ

### Technical Data

Forging material : AISI304 - DIN 1.4301  
Production : SFJ - Hook - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

J-Hooks are designed to be inserted into soil or wood to hold a string of a camping tent or an object in place.

Referral	SFJ	SIZE (mm)	Ø D (mm)	L (mm)	Ø R (mm)	
Material	SS304					
	4000-6150	6150	6	150	10.5	500
	4000-6200	6200	6	200	10.5	400
	4000-6250	6250	6	250	10.5	300
	4000-6300	6300	6	300	10.5	300




## SFH

### Technical Data

Forging material : AISI304 - DIN 1.4301  
Production : SFH - Bar - Forged  
Surface treatment : "E.P." (Electro polished)

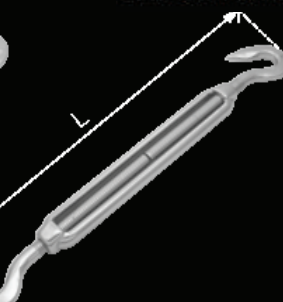
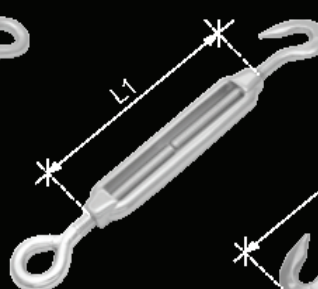
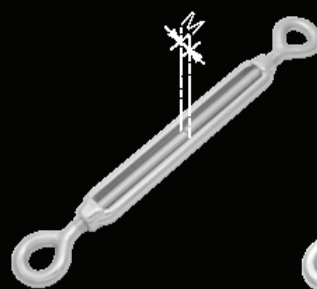
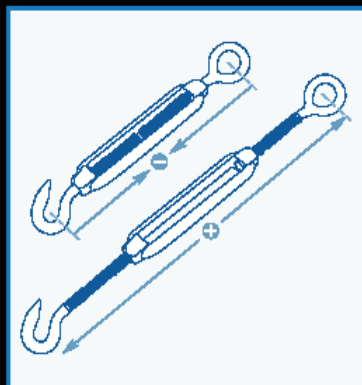
### Field of application


Closed eye bars are designed to be inserted with hammer into soil or wood to hold the strings of a tent or other objects in place.


Referral	SFH	SIZE (mm)	Ø D (mm)	L (mm)	Ø R (mm)	
Material	SS304					
	4006-0150	06150	6	150	10.50	600
	4006-0200	06200	6	200	10.50	450
	4006-0250	06250	6	250	10.50	300
	4006-0300	06300	6	300	10.50	250
	4009-0150	09150	9	150	10.25	250
	4009-0200	09200	9	200	10.25	200
	4009-0300	09300	9	300	10.25	150
	4013-0300	13300	13	300	12.50	50
	4013-0450	13450	13	450	12.50	60
	4331-3500	13500	13	500	12.50	50
	4013-0600	13600	13	600	12.50	40
	4013-1000	131000	13	1,000	12.50	25




# OPI Terminals & Turnbuckles



 **S311EE**  
Frame turnbuckle,  
eye and eye

 **S311HE**  
Frame turnbuckle,  
hook and eye

 **S311HH**  
Frame turnbuckle,  
hook and hook




## S311EE

### Technical Data

Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : S311EE - Frame - Cast  
Eye - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

Frame turnbuckle, eye and eye provides tensioning of two loose open ends.

Item no.	S311EE		SIZE	L	L1	M		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
4311-2205	6311-2205	5.0	124	70	M5	500	680	
4311-2206	6311-2206	6.0	154	90	M6	250	1,500	
4311-2208	6311-2208	8.0	210	120	M8	150	2,300	
4311-2210	6311-2210	10.0	257	150	M10	n/a	3,100	
4311-2212	6311-2212	12.0	325	200	M12	n/a	4,400	
4311-2216	6311-2216	16.0	390	250	M16	n/a	8,100	
4311-0020	6311-0020	20.0	510	300	M20	n/a	11,000	
4311-0005	6311-0005	3/16"	124	70	3/16"	n/a	650	
4311-0006	6311-0006	1/4"	154	90	1/4"	250	1,300	
4311-0008	6311-0008	5/16"	210	120	5/16"	n/a	2,100	
4311-0009	6311-0009	3/8"	257	150	3/8"	n/a	2,500	
4311-0012	6311-0012	1/2"	325	200	1/2"	50	4,500	
4311-0016	6311-0016	5/8"	390	250	5/8"	n/a	6,700	
4311-0019	6311-0019	3/4"	510	300	3/4"	n/a	10,500	




## S311HE

### Technical Data

Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4308  
Forging material : AISI304 - DIN 1.4401/  
AISI316 - DIN 1.4301  
Production : S311HE - Frame - Cast  
Hook/Eye - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

Frame turnbuckle, hook and eye provides tensioning of one fixed end with hook and one open end.

Item no.	S311HE		SIZE	L	L1	M		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
4311-3304	6311-3304	4.0	103	60	M4	1,000	100	
4311-1045	6311-1045	4.5	98	45	M5	1,000	130	
4311-3305	6311-3305	5.0	124	70	M5	500	130	
4311-3306	6311-3306	6.0	162	90	M6	250	350	
4311-3308	6311-3308	8.0	210	120	M8	150	650	
4311-3310	6311-3310	10.0	256	150	M10	100	800	
4311-3312	6311-3312	12.0	330	200	M12	50	1,400	
4311-3316	6311-3316	16.0	400	250	M16	20	2,400	
4311-3320	6311-3320	20.0	495	300	M20	15	3,500	
4311-1005	6311-1005	3/16"	124	70	3/16"	500	130	
4311-1006	6311-1006	1/4"	162	90	1/4"	250	350	
4311-1008	6311-1008	5/16"	210	120	5/16"	150	650	
4311-1009	6311-1009	3/8"	256	150	3/8"	100	800	
4311-1012	6311-1012	1/2"	330	200	1/2"	50	1,400	
4311-1016	6311-1016	5/8"	400	250	5/8"	12	2,400	
4311-1019	6311-1019	3/4"	495	300	3/4"	15	3,500	



## S311HH

### Technical Data


Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : S311HH - Frame - Cast  
Hook - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

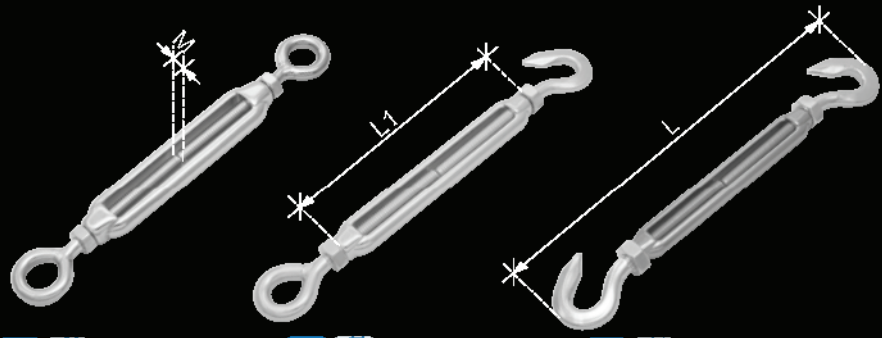
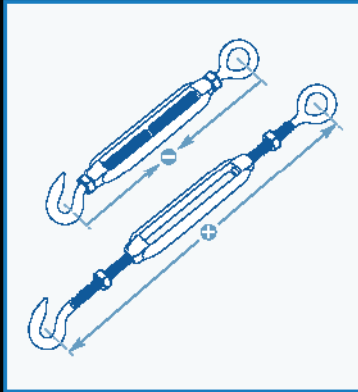
Frame turnbuckle, hook and hook provides simple tensioning of two closed ends.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics

Item no.	S311HH		SIZE	L	L1	M		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
4311-4405	6311-4405	5.0	124	70	M5	500	130	
4311-4406	6311-4406	6.0	170	90	M6	250	350	
4311-4408	6311-4408	8.0	208	120	M8	150	650	
4311-4410	6311-4410	10.0	266	150	M10	100	800	
4311-4412	6311-4412	12.0	335	200	M12	50	1,400	
4311-4416	6311-4416	16.0	415	250	M16	20	2,400	
4311-4420	6311-4420	20.0	485	300	M20	15	3,500	
4311-1105	6311-1105	3/16"	124	70	3/16"	500	130	
4311-1106	6311-1106	1/4"	170	90	1/4"	250	350	
4311-1108	6311-1108	5/16"	208	120	5/16"	150	650	
4311-1109	6311-1109	3/8"	266	150	3/8"	100	800	
4311-1112	6311-1112	1/2"	335	200	1/2"	50	1,400	
4311-1116	6311-1116	5/8"	415	250	5/8"	20	2,400	
4311-1119	6311-1119	3/4"	485	300	3/4"	15	3,500	





**S311NEE**  
Frame turnbuckle  
with nut, eye and eye

**S311NHE**  
Frame turnbuckle  
with nut, hook and eye

**S311NHH**  
Frame turnbuckle  
with nut, hook and hook



## S311NEE

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S311NEE - Frame- Cast  
 Eye - Forged

Surface treatment : "E.P." (Electro polished)

### Field of application

Frame turnbuckle with nut, eye and eye provides a locking function after the fittings are securely tightened.



## S311NHE

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S311NHE - Frame- Cast  
 Hook/Eye - Forged

Surface treatment : "E.P." (Electro polished)

### Field of application

Frame turnbuckle with nut, hook and eye provides extra locking function after turnbuckle has been tightened.



## S311NHH

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S311NHH - Frame- Cast  
 Hook - Forged

Surface treatment : "E.P." (Electro polished)

### Field of application

Frame turnbuckle with nut, hook and hook provides extra locking function after the turnbuckle has been securely tightened.

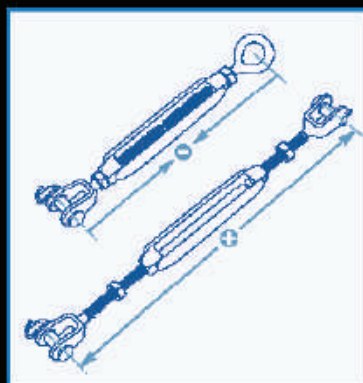
**Note<sup>4)</sup>** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics

Remno.	<b>S311NEE</b>	SIZE	L	L1	M		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
	6311-6704	4	102	60	M4	1,000	475
	6311-7005	5	124	70	M5	500	680
	6311-7006	6	154	90	M6	250	1,500
	6311-7008	8	210	120	M8	150	2,300
	6311-7010	10	257	150	M10	100	3,100
	6311-7012	12	325	200	M12	50	4,400
	6311-7016	16	390	250	M16	25	8,100
	6311-7020	20	510	300	M20	15	11,000
	6311-6705	3/16"	124	70	3/16"	500	650
	6311-6706	1/4"	154	90	1/4"	250	1,300
	6311-6708	5/16"	210	120	5/16"	150	2,100
	6311-6709	3/8"	257	150	3/8"	100	2,500
	6322-6712	1/2"	325	200	1/2"	50	4,500
	6311-6716	5/8"	390	250	5/8"	15	6,700
	6311-6719	3/4"	510	300	3/4"	15	10,500

Remno.	<b>S311NHE</b>	SIZE	L	L1	M		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
	6311-6804	4	103	60	M4	1,000	100
	6311-7105	5	124	70	M5	500	130
	6311-7106	6	162	90	M6	250	350
	6311-7108	8	210	120	M8	150	650
	6311-7110	10	256	150	M10	100	800
	6311-7112	12	330	200	M12	50	1,400
	6311-7116	16	400	250	M16	25	2,400
	6311-7120	20	495	300	M20	15	3,500
	6311-6805	3/16"	124	70	3/16"	500	130
	6311-6806	1/4"	162	90	1/4"	250	350
	6311-6808	5/16"	210	120	5/16"	150	650
	6311-6809	3/8"	256	150	3/8"	100	800
	6311-6812	1/2"	330	200	1/2"	50	1,400
	6311-6816	5/8"	400	250	5/8"	20	2,400
	6311-6819	3/4"	495	300	3/4"	15	3,500

Remno.	<b>S311NHH</b>	SIZE	L	L1	M		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
	6311-6904	4	103	60	M4	1,000	100
	6311-7205	5	124	70	M5	500	130
	6311-7206	6	170	90	M6	250	350
	6311-7208	8	208	120	M8	150	650
	6311-7210	10	266	150	M10	100	800
	6311-7212	12	335	200	M12	50	1,400
	6311-7216	16	415	250	M16	20	2,400
	6311-7220	20	485	300	M20	15	3,500
	6311-6905	3/16"	124	70	3/16"	500	130
	6311-3906	1/4"	170	90	1/4"	150	350
	6311-6908	5/16"	208	120	5/16"	150	650
	6311-6909	3/8"	266	150	3/8"	100	800
	6311-6912	1/2"	335	200	1/2"	50	1,400
	6311-6916	5/8"	415	250	5/8"	20	2,400
	6311-6919	3/4"	485	300	3/4"	15	3,500



## S311JE

### Technical Data

Casting material : A19B316 - DN 1.4408

Forging material : A19B316 - DN 1.4401

Production : S311JE - Frame - Cast  
Jaw - Forged  
Eye - Welded  
Accessory - See chart

Surface treatment : "E.P." (Electro polished)

### Field of application

Frame turnbuckles, jaw and eye are designed to tighten two loose end while turning of the frame body itself.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



## S311JJ



## S311JJ



## S312

Technical Material	S311JE	SIZE	L	L1	M	Accessory	B.L. <sup>(2)</sup>
	SS316	(mm / inch)	(mm)	(mm)	(tthread)		(kgs)
	6311-6205	5	120	70	M5	Ring	450
	6311-6206	6	145	90	M6	Ring	250
	6311-6208	8	190	120	M8	Ring	150
	6311-6210	10	235	150	M10	Ring	80
	6311-6212	12	310	200	M12	Ring	40
	6311-6238	3/8"	235	150	3/8"	Ring	80
	6311-6216	16	360	250	M16	Cotter pin	15
	6311-6220	20	473	300	M20	Cotter pin	n/a
							680
							1,500
							2,300
							3,100
							4,400
							2,500
							8,000
							11,000



## S311JJ

### Technical Data

Casting material : A19B316 - DN 1.4408

Forging material : A19B316 - DN 1.4401

Production : S311JJ - Frame - Cast  
Jaw - Forged  
Accessory - See chart

Surface treatment : "E.P." (Electro polished)

### Field of application

Frame turnbuckles, jaw and jaw (metric thread) are designed to tighten two loose end while turning of the frame body itself.

Technical Material	S311JJ	SIZE	L	L1	M	Accessory	B.L. <sup>(2)</sup>
	SS316	(mm)	(mm)	(mm)	(tthread)		(kgs)
	6311-6405	5	114	70	M5	Ring	500
	6311-6406	6	137	90	M6	Ring	300
	6311-6408	8	179	120	M8	Ring	150
	6311-6310	10	220	150	M10	Ring	80
	6311-6312	12	296	200	M12	Ring	50
	6311-6314	14	275	170	M14	Cotter pin	25
	6311-6316	16	328	200	M16	Cotter pin	15
	6311-7719	20	436	300	M20	Cotter pin	10
							750
							1,400
							2,200
							3,450
							5,000
							6,400
							8,000
							10,500



## S312

### Technical Data

Casting material : A19B316 - DN 1.4408

Forging material : A19B316 - DN 1.4401

Production : S312 - Frame - Cast  
Jaw - Forged  
Accessory - See chart

Surface treatment : "E.P." (Electro polished)

### Field of application

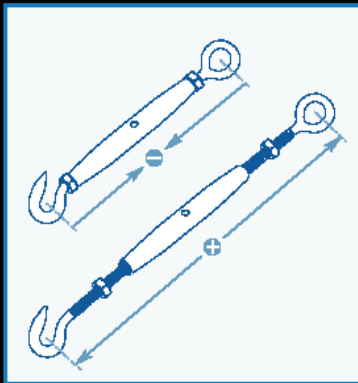
Frame turnbuckles, jaw and jaw (inch thread) are specially designed for the U.S. market.

Technical Material	S312	SIZE	L	L1	M	Accessory	B.L. <sup>(2)</sup>
	SS316	(inch)	(mm)	(mm)	(tthread)		(kgs)
	6312-0005	3/16"	114	70	3/16"	Ring	500
	6312-0006	1/4"	137	90	1/4"	Ring	300
	6312-0008	5/16"	179	120	5/16"	Ring	150
	6312-0010	3/8"	220	150	3/8"	Ring	80
	6312-0012	1/2"	296	200	1/2"	Ring	50
	6312-0013	1/2"UNC	296	200	1/2"UNC	Ring	40
	6312-0016	5/8"	328	200	5/8"	Cotter pin	15
	6312-0119	3/4"	436	300	3/4"	Cotter pin	10
							750
							1,400
							2,200
							3,450
							5,000
							6,400
							8,000
							10,500

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 3 load characteristics





### SF312PEE

#### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF312PEE - Eye - Welded  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles, eye and eye are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics



### SF312PHE

#### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF312PHE - Hook - Forged  
 Eye - Welded  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles, hook and eye are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.



### SF312PHH

#### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF312PHH - Hook - Forged  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles, hook and hook are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.



### SF312PJE

#### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF312PJE - Jaw - Forged  
 Eye - Welded  
 Accessory - See chart  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles, jaw and eye are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

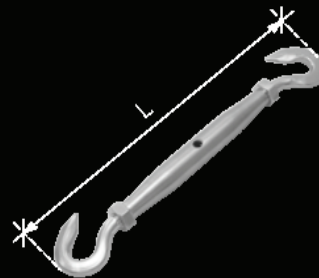
Refer to page IV - class 1 load characteristics



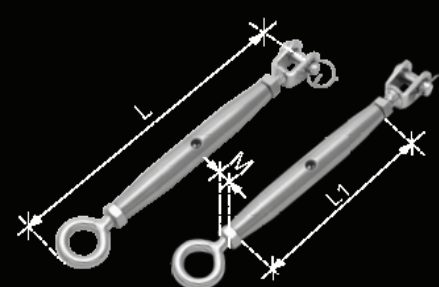
**SF312PEE**  
 Pipe turnbuckle, eye and eye



**SF312PHE**  
 Pipe turnbuckle, hook and eye



**SF312PHH**  
 Pipe turnbuckle, hook and hook



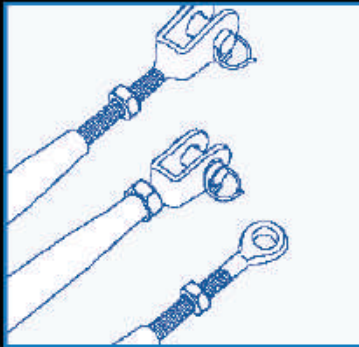
**SF312PJE**  
 Pipe turnbuckle, jaw and eye

Item no.	SF312PEE	SIZE	L	L1	M		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
	6312-3105	5	137	80	M5	600	680
	6312-3106	6	164	90	M6	300	1,500
	6312-3108	8	191	105	M8	200	2,300
	6312-3110	10	235	125	M10	100	3,100
	6312-3112	12	280	150	M12	50	4,400
	6312-3116	16	360	190	M16	25	8,000
	6312-3120	20	407	210	M20	15	10,000

Item no.	SF312PHE	SIZE	L	L1	M		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
	6312-3205	5	137	80	M5	600	130
	6312-3206	6	164	90	M6	300	350
	6312-3208	8	196	105	M8	175	650
	6312-3210	10	235	125	M10	100	800
	6312-3212	12	288	150	M12	50	1,400
	6312-1416	16	362	190	M16	20	2,400
	6312-0020	19	399	210	M20	15	3,500

Item no.	SF312PHH	SIZE	L	L1	M		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
	6312-3305	5	134.5	80	M5	600	130
	6312-3306	6	168.0	90	M6	250	350
	6312-3308	8	190.0	105	M8	200	650
	6312-3310	10	230.0	125	M10	100	800
	6312-3312	12	288.0	150	M12	50	1,400
	6312-0021	16	357.0	190	M16	20	2,400
	6312-0022	20	395.0	210	M20	15	3,500

Item no.	SF312PJE	SIZE	L	L1	M	Accessory	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)		(kgs)
	6312-3405	5	119	80	M5	Ring	n/a
	6312-3406	6	146	90	M6	Ring	500
	6312-3408	8	176	105	M8	Ring	300
	6312-3410	10	209	125	M10	Ring	150
	6312-3412	12	260	150	M12	Ring	60
	6312-3416	16	299	190	M16	Cotter pin	n/a
	6312-3420	20	383	210	M20	Cotter pin	n/a



## SF312P

### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF312P - Jaw - Forged  
 Accessory - See chart  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Pipe turnbuckles jaw and jaw are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 3 load characteristics



## SF312/7

### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF312/7 - Eye/Jaw - Forged  
 Accessory - See chart  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Pipe turnbuckles jaw and eye are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



## SF3127P

### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF3127P - Eye - Forged  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Pipe turnbuckles eye and eye are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.

**Note:**<sup>(3)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics



## SF312P



Pipe turnbuckle,  
jaw and jaw



## SF312/7



Pipe turnbuckle,  
jaw and eye

## SF3127P

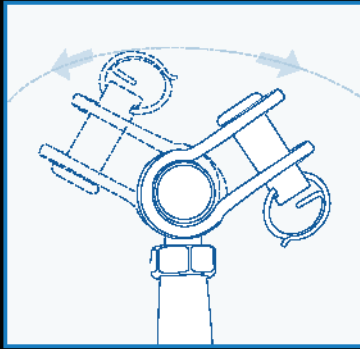
Pipe turnbuckle,  
eye and eye

Terminals	SF312P	SIZE	L	L1	M	Accessory		PBC	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)				(kgs)
	6312-0505	5	115	80	M5	Ring	500	4	750
	6312-0506	6	142	90	M6	Ring	250	4	1,400
	6312-0508	8	160	105	M8	Ring	150	4	2,200
	6312-0510	10	200	125	M10	Ring	100	4	3,450
	6312-0512	12	245	150	M12	Ring	50	n/a	5,000
	6312-0514	14	280	165	M14	Cotter pin	35	n/a	6,400
	6312-0616	16	304	190	M16	Cotter pin	20	n/a	8,000
	6312-9220	20	350	210	M20	Cotter pin	12	n/a	10,500
	6312-0524	24	445	250	M24	Cotter pin	8	n/a	14,500

Terminals	SF312/7	SIZE	L	L1	M	Accessory		PBC	B.L. <sup>(2)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)				(kgs)
F	6312-7005	5	130	80	M5	Ring	500	4	750
F	6312-7006	6	135	90	M6	Ring	300	4	1,400
F	6312-7008	8	165	105	M8	Ring	150	4	2,200
F	6312-7010	10	200	125	M10	Ring	100	4	3,450
F	6312-7012	12	240	150	M12	Ring	50	n/a	5,000
F	6312-7014	14	270	165	M14	Cotter pin	35	n/a	6,400
F	6312-7016	16	295	190	M16	Cotter pin	20	n/a	8,000
F	6312-7020	20	340	210	M20	Cotter pin	12	n/a	10,500

Terminals	SF3127P	SIZE	L	L1	M	Accessory		PBC	B.L. <sup>(3)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)				(kgs)
F	6312-7705	5	125	80	M5		1,000		750
F	6312-7706	6	135	90	M6		400		1,000
F	6312-7708	8	165	105	M8		200		2,200
F	6312-7710	10	185	125	M10		100		3,000
F	6312-7712	12	225	150	M12		80		5,000
F	6312-7714	14	255	165	M14		35		6,100
F	6312-7716	16	275	190	M16		25		8,000
F	6312-7720	20	338	210	M20		15		10,500





### S3125/7

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S3125/7 - Eye - Forged Toggle - Cast  
 Accessory - See chart  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles, eye and toggle are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



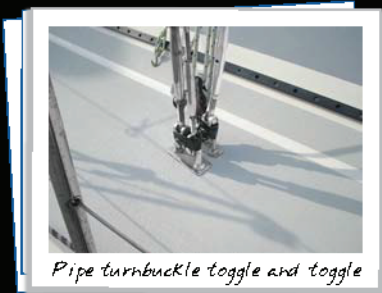
### S312/5

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S312/5 - Swivel toggle - Cast Jaw - Forged  
 Accessory - See chart  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles, toggle and jaw are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.



### S3125

#### Technical Data

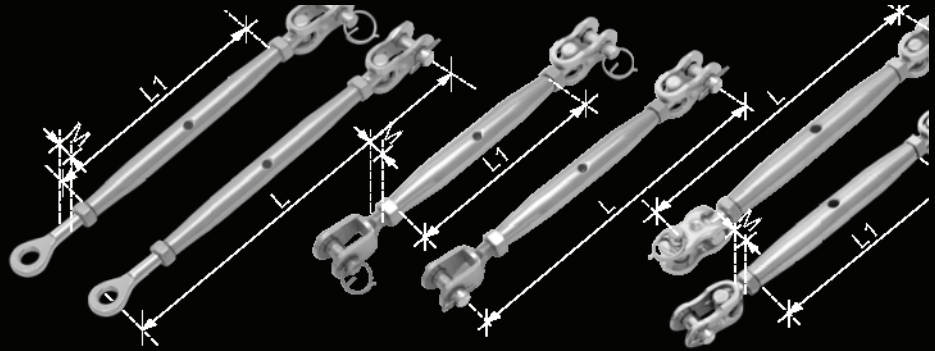
Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S3125 - Toggle - Cast  
 Accessory - See chart  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles, toggle and toggle are designed for circular appearance of turnbuckle while concealing the threads within the pipe for aesthetic reasons.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 3 load characteristics



**M** S3125/7 Pipe turnbuckle, eye and toggle

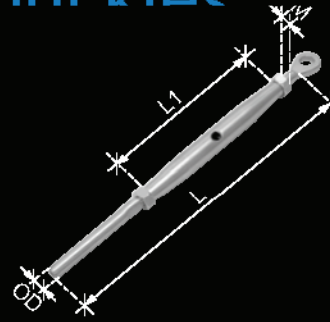
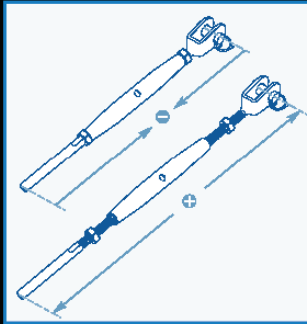
**M** S312/5 Pipe turnbuckle, toggle and jaw

**M** S3125 Pipe turnbuckle, toggle and toggle

Item No.	S3125/7	SIZE	L	L1	M	Accessory		P B C	B.L. <sup>(2)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)				(kgs)
F	6312-5805	5	135	80	M5	Ring	500	4	500
F	6312-5806	6	140	90	M6	Ring	250	4	900
F	6312-5808	8	175	105	M8	Ring	150	4	1,650
F	6312-5810	10	210	125	M10	Ring	100	4	2,500
F	6312-5812	12	245	150	M12	Ring	50	n/a	3,700
F	6312-5714	14	280	165	M14	Cotter pin	35	n/a	5,000
F	6312-5716	16	310	190	M16	Cotter pin	25	n/a	6,950
F	6312-5120	20	367	210	M20	Cotter pin	15	n/a	9,600

Item No.	S312/5	SIZE	L	L1	M	Accessory		P B C	B.L. <sup>(2)</sup>
Material	SS316	(mm/inch)	(mm)	(mm)	(thread)				(kgs)
	6312-4005	5	124	80	M5	Ring	350	4	500
	6312-4006	6	150	90	M6	Ring	200	4	900
	6312-4008	8	170	105	M8	Ring	150	4	1,650
	6312-4010	10	205	125	M10	Ring	75	4	2,500
	6312-4012	12	265	150	M12	Ring	35	n/a	3,700
	6312-4014	14	280	165	M14	Cotter pin	25	n/a	5,000
	6312-1054	16	335	190	M16	Cotter pin	15	n/a	6,950
	6312-4020	20	375	210	M20	Cotter pin	12	n/a	9,600
	6312-4613	3/16"	124	80	3/16"	Ring	350	n/a	500
	6312-4401	1/4"	150	90	1/4"	Ring	200	n/a	900
	6312-4615	5/16"	170	105	5/16"	Ring	100	n/a	1,650
	6312-4803	3/8"	205	125	3/8"	Ring	75	n/a	2,500
	6312-4201	1/2"	265	150	1/2"	Ring	35	n/a	3,700
	6312-4805	5/8"	335	190	5/8"	Cotter pin	15	n/a	6,950

Item No.	S3125	SIZE	L	L1	M	Accessory		P B C	B.L. <sup>(2)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)				(kgs)
	6312-1052	5	131	80	M5	Ring	350	500	
	6312-5006	6	148	90	M6	Ring	200	900	
	6312-5008	8	180	105	M8	Ring	140	1,650	
	6312-5010	10	220	125	M10	Ring	75	2,500	
	6312-5012	12	258	150	M12	Ring	35	3,700	
	6312-1061	14	295	165	M14	Cotter pin	25	5,000	
	6312-5016	16	335	190	M16	Cotter pin	15	6,950	
	6312-5020	20	385	210	M20	Cotter pin	10	9,600	



**SF3121/7**  
Pipe turnbuckle, eye and swage stud



## SF3121/7

### Technical Data

Forging material : AISI316 - DIN 1.4401  
Production : SF3121/7 - Eye - Forged Terminal - Forged  
Surface treatment : "M.F." (Matte finished)

### Field of application

Pipe turnbuckles, eye and swage stud are designed for tightening of one loose end to a wire rope. The wire rope must be swaged properly with a swaging machine.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 4 load characteristics



## S3121P, SF3121P

### Technical Data

Forging material : AISI316 - DIN 1.4401  
Production : S3121P - Jaw - Forged Terminal - Forged Nut - Cast Accessory - See chart  
SF3121P - Jaw/Nut - Forged Terminal - Forged Accessory - See chart  
Surface treatment : "M.F." (Matte finished)

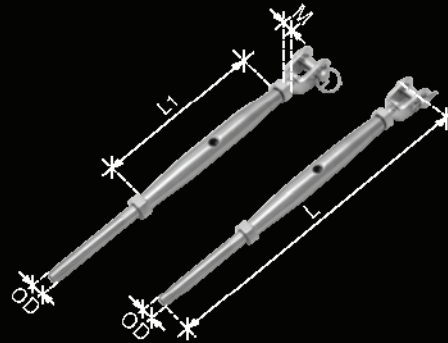
### Field of application

Pipe turnbuckles, jaw and swage stud are designed for tightening of one loose end to a wire rope. The wire rope must be swaged properly with a swaging machine.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 5 load characteristics

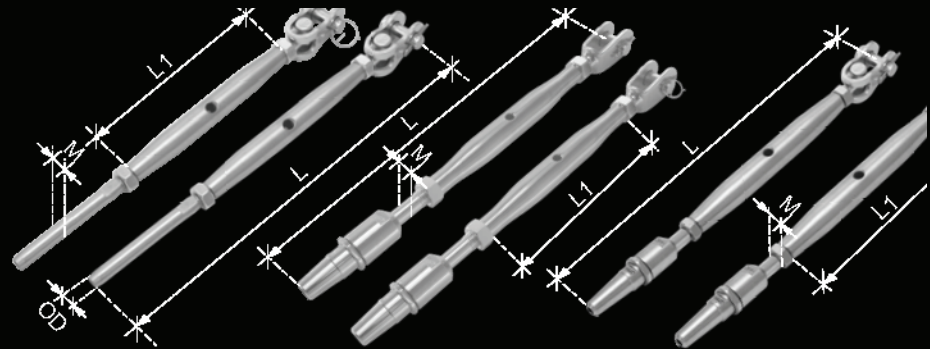
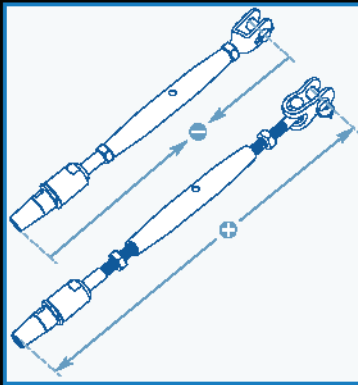
Remno.	SF3121/7	SIZE	L	L1	M	OD	Dia Ø Cable		PBC	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)	(mm)	(mm)			(kgs)
F	6312-1063	5	156	80	M5	5.5	2.5	600	4	600
F	6312-1055	6	163	90	M6	6.3	3.0	400	4	1,000
F	6312-1051	8	200	105	M8	7.5	4.0	200	4	1,400
F	6312-1056	10	238	125	M10	9.1	5.0	100	4	2,200
F	6312-1057	12	284	150	M12	12.5	6.0	50	n/a	4,000
F	6312-1058	14	312	165	M14	14.3	7.0	50	n/a	5,400
F	6312-1059	16	360	190	M16	16.1	8.0	35	n/a	6,500
F	6312-1785	20	410	210	M20	17.8	10.0	15	n/a	8,500



**S3121P, SF3121P**  
Pipe turnbuckle, jaw and swage stud

Remno.	S3121P	SIZE	L	L1	M	OD	Dia Ø Cable	Accessory	B.L. <sup>(1)</sup>
Material	SS316	(mm/inch)	(mm)	(mm)	(thread)	(mm)	(mm)		(kgs)
	6312-1415	10*M20	415	210	M20	17.8	10	Cotter pin	600
	6312-1068	1/2**3/4"UNC	462	210	3/4"UNC	21.4	1/2"	Ring	1,000

Remno.	SF3121P	SIZE	L	L1	M	OD	Dia Ø Cable	Accessory	PBC	B.L. <sup>(1)</sup>	
Material	SS316	(mm/inch)	(mm)	(mm)	(thread)	(mm)	(mm)			(kgs)	
	6312-1017	5	150	80	M5	5.5	2.5	Ring	600	4	600
	6312-1016	6	170	90	M6	6.3	3.0	Ring	350	4	1,000
	6312-1018	8	205	105	M8	7.5	4.0	Ring	200	4	1,400
	6312-1009	10	240	125	M10	9.1	5.0	Ring	100	4	2,200
	6312-1010	12	295	150	M12	12.5	6.0	Ring	50	n/a	4,000
	6312-1011	14	325	165	M14	14.3	7.0	Cotter pin	30	n/a	5,400
	6312-1070	16	370	190	M16	16.1	8.0	Cotter pin	30	n/a	6,500
	6312-1071	20	405	210	M20	17.8	10.0	Cotter pin	15	n/a	8,500
	2312-1068	2*M5	151.5	80	M5	5.5	2.5	Ring	600	n/a	600
	6312-1122	3*M5	142	80	M5	6.3	3.0	Ring	600	n/a	600
	6312-1050	4*M6	185	90	M6	7.5	4.0	Ring	350	n/a	1,000
	6312-1064	5*M8	210	105	M8	9.1	5.0	Ring	200	n/a	1,400
	2312-1072	7*M12	297.25	150	M12	14.3	7.0	Ring	n/a	n/a	4,500
	6312-1098	8*M12	303	150	M12	16.1	8.0	Ring	40	n/a	4,500
	2312-1073	8*M14	328	165	M14	16.1	8.0	Cotter pin	n/a	n/a	6,000
	2312-1074	10*M16	380	190	M16	17.8	10.0	Cotter pin	n/a	n/a	8,200
	6312-1455	12*M20	414	210	M20	21.4	12.0	Cotter pin	n/a	n/a	12,500
	2312-1461	16*M24	610	250	M24	28.2	16.0	Cotter pin	n/a	n/a	18,500
	6312-1065	3/32**M5	155	80	M5	5.5	3/32"	Ring	600	n/a	600
	6312-1007	1/8**M5	156	80	M5	6.3	1/8"	Ring	600	n/a	600
	6312-1008	1/8**M6	170	90	M6	6.3	1/8"	Ring	350	n/a	1,000
	6312-6028	5/32**M6	178	90	M6	7.5	5/32"	Ring	350	n/a	1,000
	6312-1023	5/32**M8	205	105	M8	7.5	5/32"	Ring	500	n/a	1,400
	6312-1015	3/16**M8	205	105	M8	9.1	3/16"	Ring	200	n/a	1,400
	6312-1027	3/16**M10	240	125	M10	9.1	3/16"	Ring	125	n/a	2,200
	6312-1006	1/4**M10	247	125	M10	12.5	1/4"	Ring	75	n/a	2,200
	6312-1040	1/4**M12	295	150	M12	12.5	1/4"	Ring	50	n/a	4,000
	6312-1041	5/16**M12	310	150	M12	16.1	5/16"	Ring	40	n/a	4,000



**S3121/5**  
Pipe turnbuckle,  
toggle and swage stud

**S312P/4**  
Pipe turnbuckle,  
jaw and swageless  
terminal

**S3125P/4**  
Pipe turnbuckle,  
toggle and swageless  
terminal



### S3121/5

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S3121/5 - Swivel toggle - Cast  
 Terminal - Forged  
 Accessory - See chart  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles toggle and swage stud are designed for tightening of one loose end to a wire rope. The wire rope must be swaged properly with a swaging machine.



### S312P/4

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S312P/4 - Jaw - Forged  
 Swageless terminal - Cast  
 Accessory - See chart  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles jaw and swageless terminal are designed for tightening of one loose end to a wire rope. The wire rope is assembled without a swaging machine.



### S3125P/4

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S3125P/4 - Toggle - Cast  
 Swageless terminal - Cast  
 Accessory - See chart  
 Surface treatment : "M.F." (Matte finished)

#### Field of application

Pipe turnbuckles toggle and swageless terminal are designed for tightening of one loose end to a wire rope. The wire rope is assembled without a swaging machine.

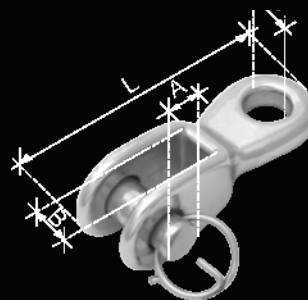
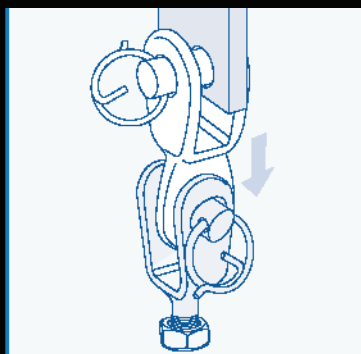
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 5 load characteristics

Part no.	S3121/5	SIZE	L	L1	M	OD	Dia Ø Cable	Accessory	P B C	B.L. <sup>(1)</sup> (kgs)	
Material	SS316	(mm/inch)	(mm)	(mm)	(thread)	(mm)	(mm)				
	6312-5047	2.5	155	80	M5	5.5	2.5	Ring	400	4	600
	6312-1044	3	172	90	M6	6.3	3.0	Ring	250	4	1,000
	6312-1076	4	171	90	M6	7.5	4.0	Ring	200	4	1,000
	6312-1045	4	210	105	M8	7.5	4.0	Ring	150	4	1,400
	6312-1077	5	216	105	M8	9.1	5.0	Ring	125	n/a	1,400
	6312-1035	5	246	125	M10	9.1	5.0	Ring	100	n/a	2,200
	6312-1036	6	296	150	M12	12.5	6.0	Ring	50	n/a	4,000
	6312-1037	7	328	165	M14	14.3	7.0	Cotter pin	40	n/a	5,400
	6312-1075	8	310	150	M12	16.1	8.0	Ring	50	n/a	4,000
	6312-1038	8	386	190	M16	16.1	8.0	Cotter pin	25	n/a	6,500
	6312-1039	10	422	210	M20	17.8	10.0	Cotter pin	15	n/a	8,500
	6312-1074	12	416	190	M16	17.8	10.0	Cotter pin	12	n/a	6,500
	6312-1053	3/32"	156	80	M5	5.5	3/32"	Ring	600	n/a	600
	6312-1002	1/8"	180	90	M6	6.3	1/8"	Ring	250	n/a	1,000
	6312-1029	5/32"	191	90	M6	7.5	5/32"	Ring	200	n/a	1,000
	6312-1004	5/32"	211	105	M8	7.5	5/32"	Ring	150	n/a	1,400
	6312-1003	3/16"	216	105	M8	9.1	3/16"	Ring	150	n/a	1,400
	6312-1030	3/16"	244	125	M10	9.1	3/16"	Ring	100	n/a	2,200
	6312-1001	1/4"	260	125	M10	12.5	1/4"	Ring	75	n/a	2,200
	6312-1032	1/4"	308	150	M12	12.5	1/4"	Ring	50	n/a	4,000
	6312-1031	5/16"	327	150	M12	16.1	5/16"	Ring	50	n/a	4,000

Part no.	S312P/4	SIZE	L	L1	M	Accessory	P B C	B.L. <sup>(1)</sup> (kgs)
Material	SS316	(mm)	(mm)	(mm)	(thread)			
	6312-4108	4	220	105	M8	Ring	160	500
	6312-4110	5	275	125	M10	Ring	80	900
	6312-4112	6	330	150	M12	Ring	60	1,900
	6312-4168	8	400	190	M16	Cotter pin	20	2,200
	6312-4116	10	425	190	M16	Cotter pin	15	3,300

Part no.	S3125P/4	SIZE	L	L1	M	Accessory	P B C	B.L. <sup>(1)</sup> (kgs)
Material	SS316	(mm)	(mm)	(mm)	(thread)			
	6312-5408	4	230	105	M8	Ring	150	500
	6312-5410	5	285	125	M10	Ring	80	900
	6312-5412	6	335	150	M12	Ring	50	1,900
	6312-5417	8	415	190	M16	Cotter pin	20	2,200
	6312-5416	10	440	190	M16	Cotter pin	20	3,300



**S3400**  
Turnbuckle toggle



## S3400

### Technical Data

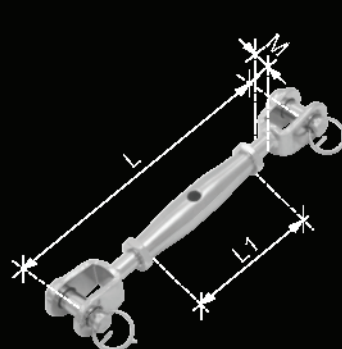
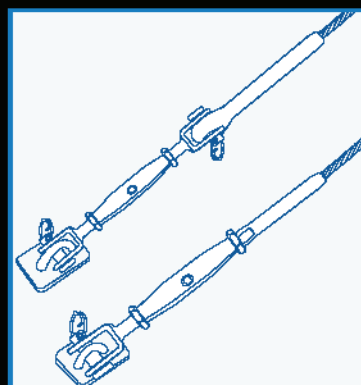
Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S3400 - Toggle - Cast  
 Pin - See chart  
 Surface treatment : "E.P." (Electro polished)

### Field of application

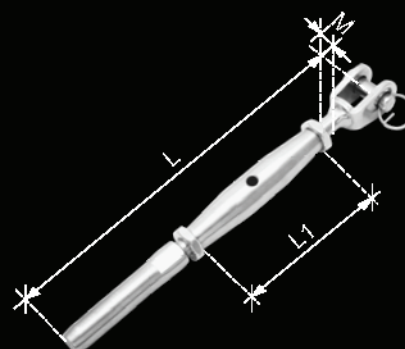
Turnbuckle toggles are designed to be inserted into jaw of any corresponding size of turnbuckle for 180 degrees movement.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics



**SF312P/MIN**  
Mini pipe turnbuckle, jaw and jaw



**SF3121P/MIN**  
Mini pipe turnbuckle, jaw and swage terminal



## SF312P/MIN

### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF312P/MIN - Jaw - Forged  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Mini pipe turnbuckles, jaw and jaw are specially designed to be used in interior where space is minimum. The extra short and slim pipe makes it aesthetically different from standard turnbuckles.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 3 load characteristics



## SF3121P/MIN

### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF3121P/MIN - Jaw - Forged  
 Terminal - Forged  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Mini pipe turnbuckles, jaw and swage terminal are specially designed to be used in interior where space is minimum. The extra short and slim pipe makes it aesthetically different from standard turnbuckles. The swage end must use a swaging machine for proper swaging of wire.

**Note:**<sup>(3)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 5 load characteristics

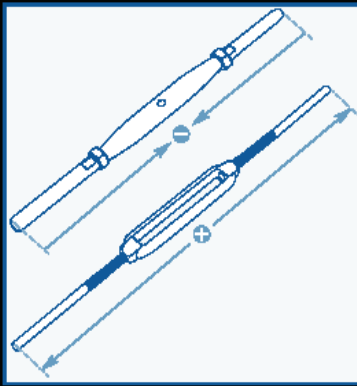
Item no.	S3400	SIZE	ØA	B	ØC	L	Pin		P B C	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)				(kgs)
	6340-0005	5	5	5.5	5.3	35	Forged	1,800	1	1,000
	6340-0006	6	6	6.5	6.8	41	Forged	1,000	1	1,250
	6340-0008	8	8	9.0	8.5	49	Forged	600	2	1,700
	6340-0010	10	9	11.0	10.0	58	Forged	350	n/a	3,100
	6340-0012	12	12	12.0	13.2	78	Forged	150	n/a	4,650
	6340-0014	14	14	13.0	15.0	92	Forged	100	n/a	5,750
	6340-0016	16	16	15.0	16.5	116	Forged	80	n/a	8,150
	6340-0020	20	16	20.0	16.5	158	Cast	30	n/a	9,400

Item no.	SF312P/MIN	SIZE	L	L1	M		P B C	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)			(kgs)
	6312-0804	4	84	40	M4	1,500	3	500
	6312-0805	5	95	50	M5	700	3	750
	6312-0806	6	110	60	M6	300	3	1,400
	6312-0808	8	122	60	M8	200	n/a	2,200
	6312-0810	10	164	80	M10	125	n/a	3,450

Item no.	SF3121P/MIN	SIZE	L	L1	M		P B C	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(thread)			(kgs)
	6312-1020	5	107	50	M5	800	4	750
	6312-1021	6	133	60	M6	450	4	1,250
	6312-1022	8	147	60	M8	300	n/a	2,200
	6312-1019	10	191	80	M10	100	n/a	3,450







**SF3122P/MIN**  
Mini pipe turnbuckle,  
swage terminal and  
swage terminal

**SF3122P**  
Pipe turnbuckle,  
swage terminal

**SF3122PK**  
Pipe turnbuckle,  
stud and stud



## SF3122P/MIN

### Technical Data

Forging material : AISI316 - DIN 1.4401  
Production : SF3122P/MIN - Pipe - Forged  
Terminal - Forged  
Surface treatment : "M.F." (Matte finished)

### Field of application

Mini pipe turnbuckles, swage terminal and swage terminal are specially designed to be used in interior where space is minimum. The extra short and slim pipe makes it aesthetically different from standards turnbuckles. The swage end must use a swaging machine for proper swaging of wire.



## SF3122P

### Technical Data

Forging material : AISI316 - DIN 1.4401  
Production : SF3122P - Terminal - Forged  
Surface treatment : "M.F." (Matte finished)

### Field of application

Pipe turnbuckles, swage terminal are specially designed for application where two loose end of wire are encountered. Both ends must be properly swaged using a swaging machine.



## SF3122PK

### Technical Data

Forging material : AISI316 - DIN 1.4401  
Production : SF3122PK - Stud - Forged  
Surface treatment : "M.F." (Matte finished)

### Field of application

Pipe turnbuckles, stud and stud are specially designed for application where two loose holes are encountered. Both ends must be properly welded to the loose holes.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page 14 - class 6 load characteristics



## S311K

### Technical Data

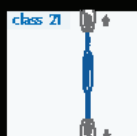
Casting material : AISI316 - DIN 1.4408  
Forging material : AISI316 - DIN 1.4401  
Production : S311K - Frame - Cast  
Stud - Forged  
Surface treatment : "E.P." (Electro polished)

### Field of application

Frame turnbuckles, stud and stud are specially designed for an application where the two loose holes are encountered. Both ends must be properly welded to the loose holes.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

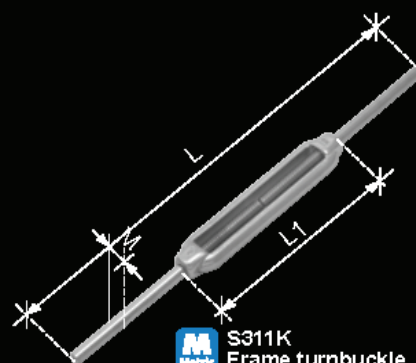
Refer to page 44 - class 21 load characteristics



Remco Material	SF3122P/MIN	SIZE (mm)	L (mm)	L1 (mm)	M (thread)	Dia Ø Cable (mm)		B.L. <sup>(1)</sup> (kgs)
	6312-2105	5	121	50	M5	3	800	1,000
	6312-2106	6	156	60	M6	4	350	1,250
	6312-2108	8	168	60	M8	5	250	1,250
	6312-2110	10	220	80	M10	6	125	2,350

Remco Material	SF3122P	SIZE (mm/inch)	L (mm)	L1 (mm)	M (thread)	Dia Ø Cable (mm)		B.L. <sup>(1)</sup> (kgs)
	6312-2005	5	180	80	M5	2.5	700	600
	6312-2006	6	200	90	M6	3.0	350	1,000
	6312-2008	8	240	105	M8	4.0	250	1,400
	6312-2010	10	275	125	M10	5.0	120	2,200
	6312-2012	12	335	150	M12	6.0	60	4,000
	6312-2014	14	365	165	M14	7.0	40	5,400
	6312-2016	16	435	190	M16	8.0	20	6,500
	6312-2480	20	480	210	M20"	10.0	20	8,500
	6312-2181	1/8"	200	90	1/4"	1/8"	350	1,000
	6312-2315	3/16"	248	105	5/16"	3/16"	200	1,400
	6312-2143	1/4"	308	125	3/8"	1/4"	75	2,200
	6312-2511	5/16"	366	150	1/2"	5/16"	40	4,500
	6312-2385	3/8"	431	190	5/8"	3/8"	30	6,500
	6312-2213	1/2"	534	210	3/4"	1/2"	15	8,500

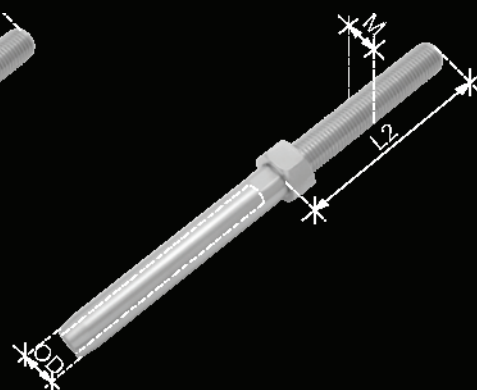
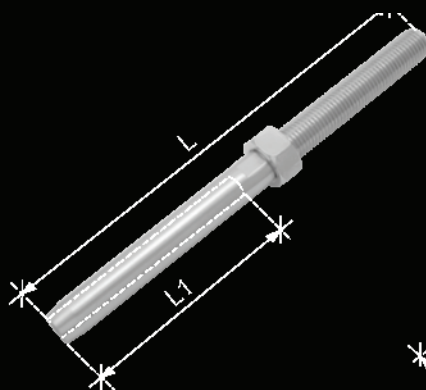
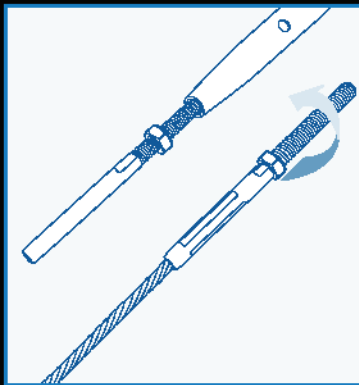
Remco Material	SF3122PK	SIZE (mm)	L (mm)	L1 (mm)	M (thread)		B.L. <sup>(1)</sup> (kgs)
	6312-2206	6	200	90	M6	250	1,400
	6312-2208	8	225	105	M8	250	2,200
	6312-2210	10	255	125	M10	100	3,450
	6312-2212	12	280	150	M12	60	5,000
	6312-2214	14	300	165	M14	n/a	6,400
	6312-2216	16	340	190	M16	35	8,000
	6312-2220	20	370	210	M20	20	10,500



**S311K**  
Frame turnbuckle,  
stud and stud

Remco Material	S311K	SIZE (mm)	L (mm)	L1 (mm)	M (thread)		B.L. <sup>(2)</sup> (kgs)
	6311-6605	5	160	70	M5	500	750
	6311-6606	6	200	90	M6	250	1,400
	6311-6608	8	240	120	M8	150	2,200
	6311-6410	10	280	150	M10	100	3,450
	6311-6412	12	330	200	M12	50	5,000
	6311-6414	14	310	170	M14	20	6,400
	6311-6516	16	410	250	M16	20	8,000
	6311-6520	20	500	300	M20	15	10,500

# OPI Terminals & Turnbuckles



## SF7801L

### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF7801L - Stud - Forged  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Left threaded stud terminals are designed for loose wire rope ends. Terminals must be properly swaged with swaging machine.



*Threaded stud terminal*

## SF7801L Left threaded stud terminal

## SF7801 Right threaded stud terminal

Part No.	SIZE	Dia Ø Cable	L	L1	L2	M	OD		PBC
Material	(mm/inch)	(mm)	(mm)	(mm)	(mm)	(thread)	(mm)		
	SS316								
6780-1032	2.5*M5	2.5	86	35	40	M5	5.5	2,000	2
6780-1033	3.0*M6	3.0	97	38	48	M6	6.3	1,000	2
6780-1034	4.0*M8	4.0	115	45	54	M8	7.5	750	3
6780-1035	5.0*M10	5.0	128	52	61	M10	9.1	300	3
6780-1036	6.0*M12	6.0	162	63	79	M12	12.5	150	n/a
6780-1189	7.0*M14	7.0	178	70	90	M14	14.3	150	n/a
6780-1812	8.0*M12	8.0	175	80	76	M12	16.1	150	n/a
6780-1037	8.0*M16	8.0	214	80	102	M16	16.1	100	n/a
6780-1813	10*M20	10.0	225	100	105	M20	17.8	60	n/a
6780-1814	12*M20	12.0	284	144	120	M20	21.4	50	n/a
6780-1815	14*M22	14.0	328	168	140	M22	25.0	n/a	n/a
2780-1994	16*M24	16.0	387	192	170	M24	28.1	25	n/a
6780-1111	1/8***M5	1/8"	85	38	35	M5	6.3	1,500	n/a
6780-1160	1/8***M5	1/8"	90	38	40	M5	6.3	1,500	n/a
6780-1107	1/8***M6	1/8"	90	38	40	M6	6.3	1,400	n/a
6780-1161	1/8***1/4"UNC	1/8"	97	37	48	1/4"UNC	6.3	1,200	n/a
6780-1108	5/32***M6	5/32"	106	45	48	M6	7.5	750	n/a
6780-1109	5/32***M8	5/32"	118	45	60	M8	7.5	750	n/a
6780-1162	5/32***1/4"UNC	5/32"	108	48	48	1/4"UNC	7.5	1,200	n/a
6780-1163	5/32***5/16"UNC	5/32"	116	48	56	5/16"UNC	7.5	900	n/a
6780-1110	3/16***M8	3/16"	124	51	60	M8	9.1	500	n/a
6780-1258	3/16***1/4"UNC	3/16"	113	53	48	1/4"UNC	9.1	600	n/a
6780-1164	3/16***5/16"UNC	3/16"	121	53	56	5/16"UNC	9.1	600	n/a
6780-1165	3/16***3/8"UNC	3/16"	132	53	67	3/8"UNC	9.1	500	n/a
6780-1265	1/4***5/16"UNC	1/4"	137	65	56	5/16"UNC	12.5	175	n/a
6780-1166	1/4***3/8"UNC	1/4"	148	65	67	3/8"UNC	12.5	300	n/a
6780-1133	5/16***M16	5/16"	175	80	76	M16	16.1	80	n/a
6780-1168	5/16***1/2"UNC	5/16"	182	83	81	1/2"UNC	16.1	150	n/a
6780-1169	3/8***5/8"UNC	3/8"	215	90	105	5/8"UNC	17.8	90	n/a



## SF7801

### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF7801 - Stud - Forged  
 Surface treatment : "M.F." (Matte finished)

### Field of application

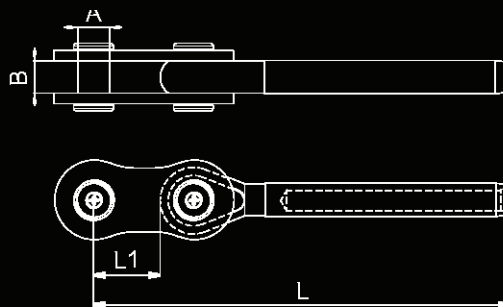
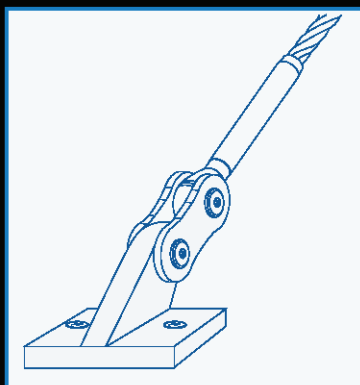
Right threaded stud terminals are designed for loose wire rope ends. Terminals must be properly swaged with swaging machine.

**Note:**<sup>(1)</sup> See Note: D14

## Standard<sup>(1)</sup>

Part No.	SIZE	Dia Ø Cable	L	L1	L2	M	OD		PBC
Material	(mm/inch)	(mm)	(mm)	(mm)	(mm)	(thread)	(mm)		
	SS316								
6780-1268	2*M5	2	86	32	40	M5	5.5	2,500	n/a
6780-1012	2.5*M5	2.5	86	35	40	M5	5.5	2,000	1
6780-1068	3*M5	3	80	32	40	M5	6.3	1,400	n/a
6780-1020	3*M6	3	97	38	48	M6	6.3	1,200	2
6780-1050	4*M6	4	110	45	48	M6	7.5	750	n/a
6780-1021	4*M8	4	115	45	54	M8	7.5	750	3
6780-1095	5*M8	5	128	51	57	M8	9.1	450	n/a
6780-1026	5*M10	5	128	52	61	M10	9.1	300	n/a
6780-1028	6*M12	6	162	63	79	M12	12.5	150	n/a
2780-1170	7*M12	7	168	70	80	M12	14.3	150	n/a
6780-1029	7*M14	7	178	70	90	M14	14.3	150	n/a
6780-1056	8*M12	8	175	80	76	M12	16.1	150	n/a
2780-1171	8*M14	8	190	80	90	M14	16.1	100	n/a
6780-1030	8*M16	8	214	80	102	M16	16.1	100	n/a
6780-1816	10*M20	10	225	100	105	M16	17.8	75	n/a
6780-1014	10*M20	10	225	100	105	M20	17.8	60	n/a
6780-1566	12*M20	12	278	144	116	M20	21.4	50	n/a
6780-1818	12*M20	12	284	144	120	M20	21.4	50	n/a
6780-1819	14*M22	14	328	168	140	M22	25.0	25	n/a
2780-1993	16*M24	16	387	192	170	M24	28.1	25	n/a
6780-1104	3/32***M5	3/32"	80	32	40	M5	5.5	2,500	n/a
6780-1188	1/8***M5	1/8"	90	37	41	M5	6.3	1,500	n/a
6780-1155	1/8***M6	1/8"	97	37	48	M6	6.3	1,400	n/a





**Metric** SF7805/CH  
Swage toggle (countersunk head pin)

**SF7805/CH**

**Technical Data**

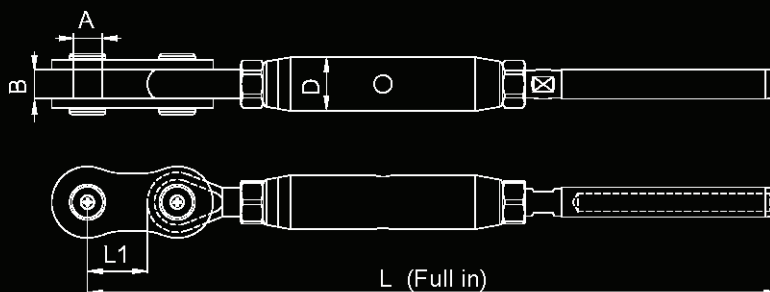
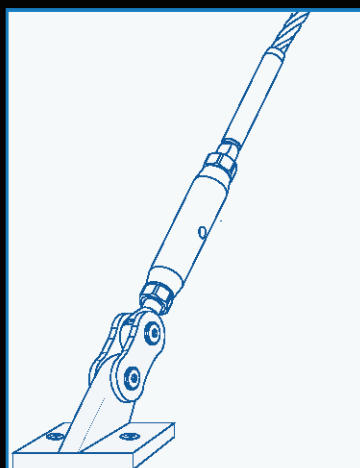
Forging material : AISI316 - DIN 1.4401  
 Production : SF7805/CH - Toggle - Sheet  
 Terminal - Bar  
 Pin - Bar

Surface treatment : "M.F." (Matte finished)

**Field of application**

Swage toggles provide the flexibility of a toggle connection with the full swage strength of swaged terminal. Swage toggles are designed to be used where no adjustment are needed.

Item no.	SF7805/CH	SIZE	ØA	B	L	L1	Dia Ø Cable	B.L. (1)
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kgs)
	2780-5314	14	24	24	313	75	14	18,500
	2780-5316	16	27	27	352	85	16	24,000
	2780-5319	19	30	30	413	95	19	29,000
	2780-5320	20	30	30	425	95	20	29,000
	2780-5322	22	33	33	462	105	22	36,000
	2780-5324	24	36	36	504	115	24	42,000
	2780-5326	26	39	39	546	125	26	51,000
	2780-5328	28	42	42	588	135	28	58,000
	2780-5330	30	45	45	630	145	30	68,000
	2780-5332	32	48	48	672	155	32	77,000
	2780-5334	34	52	52	714	165	34	92,000
	2780-5336	36	56	56	756	175	36	106,000



**Metric** S3121/5CH  
Turnbuckle toggle (countersunk head pin) & Swage terminal



**S3121/5CH**

**Technical Data**

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S3121/5CH - Turnbuckle - Pipe/ Bar  
 Toggle - Sheet  
 Terminal - Bar  
 Eye - Bar  
 Pin - Bar

Surface treatment : "M.F." (Matte finished)

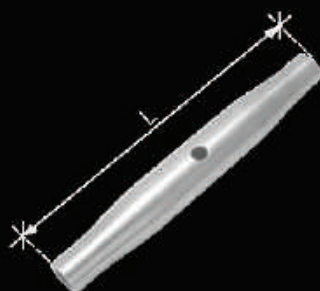
**Field of application**

Turnbuckle toggles & Swage terminals are heavy duty class turnbuckles of the Sinox basic range. They provide a solid tensioning platform for cables from 14mm to 36mm with build in 4 times cable size adjustment.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 5 load characteristics

Item no.	S3121/5CH	SIZE	ØA	B	Ø D	L		L1	Dia Ø Cable	B.L. (1)
Material	SS316	(mm)	(mm)	(mm)	(mm)	in -	out +	(mm)	(mm)	(kgs)
	6312-1609	14*M24	24	24	45.0	578	690	75	14	18,500
	6312-1610	16*M27	27	27	50.8	657	785	85	16	24,000
	6312-1611	19*M30	30	30	54.0	758	910	95	19	29,000
	6312-1612	20*M30	30	30	54.0	770	922	95	20	29,000
	6312-1613	22*M33	33	33	57.0	860	1,036	105	22	36,000
	6312-1614	24*M36	36	36	63.5	934	1,126	115	24	42,000
	6312-1615	26*M39	39	39	70.0	1,006	1,214	125	26	51,000
	6312-1621	28*M42	42	42	73.0	1,072	1,296	135	28	58,000
	6312-1617	30*M45	45	45	80.0	1,151	1,391	145	30	68,000
	6312-1618	32*M48	48	48	85.0	1,223	1,479	155	32	77,000
	6312-1619	34*M52	52	52	89.1	1,309	1,581	165	34	92,000
	6312-1620	36*M56	56	56	92.0	1,386	1,674	175	36	106,000



**SF312PBD**  
Turnbuckle pipe



**SF312PBD/MIN**  
Mini turnbuckle pipe



**SF312PLBD/MIN**  
Long mini turnbuckle pipe

## SF312PBD

### Technical Data

Forging material : AISI316 - DIN 1.4401  
Production : SF312PBD - Pipe - Forged  
Surface treatment : "M.F." (Wet finished)

### Field of application

Turnbuckle pipes are designed for tightening of two mechanical threaded ends. Fittings can be separately ordered, but dimension of thread must be carefully observed.

Material	SIZE (mm/inch)	L (mm)	M (thread)	Box	B.L. <sup>(1)</sup> (kgs)
SS316	M5	80	M5	1,500	750
SS316	M6	90	M6	600	1,400
SS316	M8	105	M8	500	2,400
SS316	M10	125	M10	250	3,450
SS316	M12	150	M12	150	5,000
SS316	M14	165	M14	100	6,500
SS316	M16	190	M16	80	8,500
SS316	M20	210	M20	40	13,000
SS316	M20*3.5	210	M20	n/a	12,800
SS316	M22*4	270	M22	n/a	15,900
SS316	M24	250	M24	10	21,000
SS316	1/4"UNC	90	1/4"UNC	600	1,400
SS316	5/16"UNC	105	5/16"UNC	400	2,400
SS316	3/8"UNC	125	3/8"UNC	250	3,450
SS316	1/2"UNC	150	1/2"UNC	150	5,000
SS316	5/8"UNC	190	5/8"UNC	70	8,500
SS316	3/4"UNC	210	3/4"UNC	40	13,000

## SF312PBD/MIN

### Technical Data

Forging material : AISI316 - DIN 1.4401  
Production : SF312PBD/MIN - Pipe - Forged  
Surface treatment : "M.F." (Wet finished)

### Field of application

Mini turnbuckle pipes are designed for tightening of two mechanical threaded ends with minimum space available. Fittings can be separately ordered, but dimension of thread and length of thread must be carefully observed.

Material	SIZE (mm)	L (mm)	M (thread)	Box	B.L. <sup>(1)</sup> (kgs)
SS316	4	40	M4	3,500	360
SS316	5	50	M5	3,000	750
SS316	6	60	M6	800	1,250
SS316	8	60	M8	1,000	2,200
SS316	10	80	M10	400	3,400

## SF312PLBD/MIN

### Technical Data

Forging material : AISI316 - DIN 1.4401  
Production : SF312PLBD/MIN - Pipe - Forged  
Surface treatment : "M.F." (Wet finished)

### Field of application

Long mini turnbuckle pipes are designed for tightening of two mechanical threaded ends with extra slim profile. Fittings can be separately ordered, but dimension of thread and length of thread must be carefully observed.

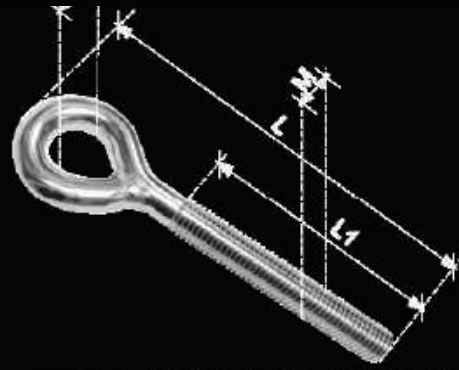
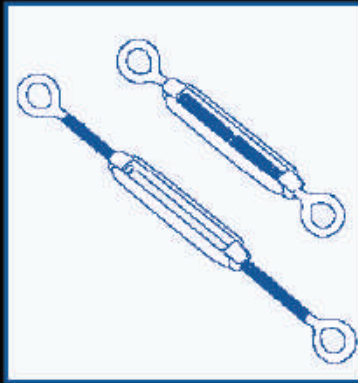
Material	SIZE (mm)	L (mm)	M (thread)	Box	B.L. <sup>(1)</sup> (kgs)
SS316	4	80	M4	1,500	360
SS316	5	100	M5	800	750
SS316	6	120	M6	500	1,250
SS316	8	120	M8	300	2,200
SS316	10	160	M10	150	3,400

**Note<sup>(1)</sup>** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics







BF311EL (Left threaded eye)  
BF311ER (Right threaded eye)



## BF311EL, BF311ER

### Technical Data

Forging material : AISI304 - DIN 1.4301  
                              AISI316 - DIN 1.4301  
Surface treatment : "E.P." (Electro polished)

### Field of application

Left threaded eyes and right threaded eyes are designed to be used primarily with turnbuckles.

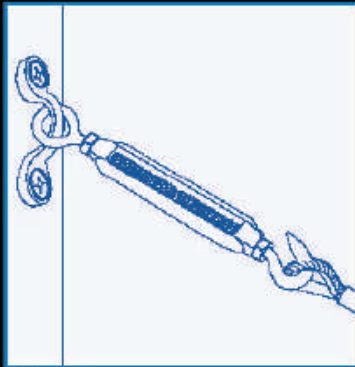
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class B load characteristics

Item no. Version	BF311EL	SIZE (mm/inch)	C (mm)	L (mm)	L1 (mm)	M (thread)	B.L. <sup>(1)</sup> (kgs)
1931-1041	2931-1041	M4.0	8.5	52.0	33.5	M4	475
1931-1451	2931-1451	M4.5	8.5	48.0	27.0	M5	680
1311-5504	2311-5503	M5.0	10.0	62.0	39.0	M5	680
1311-5506	2311-5502	M6.0	12.0	77.0	50.0	M6	1,500
1931-1181	2931-1182	M8.0	14.0	105.0	66.5	M8	2,300
1311-5509	2311-5509	M10.0	17.0	128.5	83.5	M10	3,100
1311-5512	2311-5512	M12.0	20.0	160.0	110.0	M12	4,400
1311-5516	2311-5516	M16.0	22.0	202.5	137.5	M16	8,100
1311-2001	2311-2001	M20.0	28.0	232.0	147.0	M20	11,000
1311-3161	2311-3161	3/16"	10.0	62.0	39.0	3/16"	650
1311-4102	2311-4102	1/4"	12.0	77.0	50.0	1/4"	1,300
1311-5122	2311-5122	5/16"	14.0	105.0	66.5	5/16"	2,100
1311-5538	2311-5538	3/8"	17.0	128.5	83.5	3/8"	2,500
1311-2213	2311-2213	1/2"	20.0	160.0	110.0	1/2"	4,500
1311-5758	2311-5759	5/8"	22.0	202.5	137.5	5/8"	6,700
1311-5534	2311-5533	3/4"	28.0	232.0	147.0	3/4"	10,500
1311-2113	2311-2113	1/2"UNC	20.0	160.0	110.0	1/2"UNC	4,500

Item no. Version	BF311ER	SIZE (mm/inch)	C (mm)	L (mm)	L1 (mm)	M (thread)	B.L. <sup>(1)</sup> (kgs)
1931-1040	2931-1040	M4.0	8.5	52.0	33.5	M4	475
1931-1450	2931-1450	M4.5	8.5	48.0	27.0	M5	680
1931-1205	2931-1206	M5.0	10.0	62.0	39.0	M5	680
1311-5606	2311-5608	M6.0	12.0	77.0	50.0	M6	1,500
1931-1208	2931-1209	M8.0	14.0	105.0	66.5	M8	2,300
1311-5609	2311-5601	M10.0	17.0	128.5	83.5	M10	3,100
1311-5612	2311-5611	M12.0	20.0	160.0	110.0	M12	4,400
1311-5616	2311-5615	M16.0	22.0	202.5	137.5	M16	8,100
1311-2011	2311-2011	M20.0	28.0	232.0	147.0	M20	11,000
1311-3162	2311-3162	3/16"	10.0	62.0	39.0	3/16"	650
1311-4112	2311-4113	1/4"	12.0	77.0	50.0	1/4"	1,300
1311-5112	2311-5113	5/16"	14.0	105.0	66.5	5/16"	2,100
1311-5638	2311-5638	3/8"	17.0	128.5	83.5	3/8"	2,500
1311-2214	2311-2214	1/2"	20.0	160.0	110.0	1/2"	4,500
1311-5658	2311-5659	5/8"	22.0	202.5	137.5	5/8"	6,700
1311-5634	2311-5633	3/4"	28.0	232.0	147.0	3/4"	10,500
1311-2114	2311-2114	1/2"UNC	20.0	160.0	110.0	1/2"UNC	4,500





## BF311NEL, BF311NER

### Technical Data

Forging material : AISI304 - DIN 1.4308  
 AISI316 - DIN 1.4401  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Left threaded eyes and nuts and right threaded eyes and nuts are designed to be assembled with turnbuckles.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1.4 of breaking load.

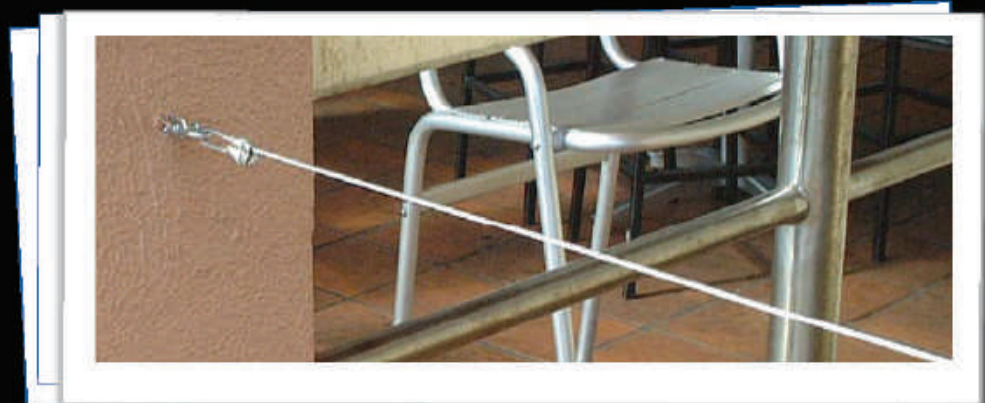
Refer to page IV - class 8 load characteristics



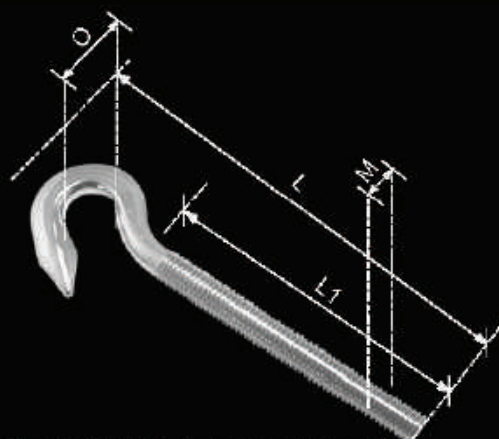
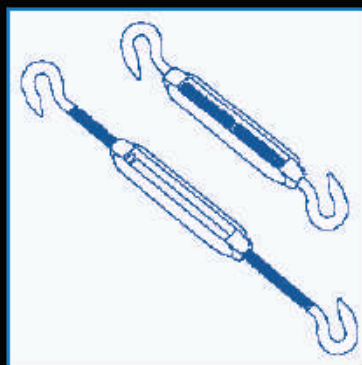
BF311NEL (Left threaded eye and nut)  
 BF311NER (Right threaded eye and nut)

Part no.		SIZE	C	L	L1	M	B.L. <sup>(1)</sup>
Material		(mm/inch)	(mm)	(mm)	(mm)	(thread)	(kgs)
SS304	SS316						
1311-5543	2311-5543	M4.0	8.5	52.0	33.5	M4	475
1311-5445	2311-5445	M4.5	8.5	48.0	27.0	M5	680
1311-5557	2311-5555	M5.0	10.0	62.0	39.0	M5	680
1311-5556	2311-5559	M6.0	12.0	77.0	50.0	M6	1,500
1311-5558	2311-5554	M8.0	14.0	105.0	66.5	M8	2,300
1311-5410	2311-5410	M10.0	17.0	128.5	83.5	M10	3,100
1311-5412	2311-5412	M12.0	20.0	160.0	110.0	M12	4,400
1311-5416	2311-5416	M16.0	22.0	202.5	137.5	M16	8,100
1311-5420	2311-5420	M20.0	28.0	232.0	147.0	M20	11,000
1311-5436	2311-5436	3/16"	10.0	62.0	39.0	3/16"	650
1311-5414	2311-5414	1/4"	12.0	77.0	50.0	1/4"	1,300
1311-5456	2311-5456	5/16"	14.0	105.0	66.5	5/16"	2,100
1311-5438	2311-5438	3/8"	17.0	128.5	83.5	3/8"	2,500
1311-5411	2311-5411	1/2"	20.0	160.0	110.0	1/2"	4,500
1311-5458	2311-5458	5/8"	22.0	202.5	137.5	5/8"	6,700
1311-5434	2311-5434	3/4"	28.0	232.0	147.0	3/4"	10,500
1311-5413	2311-5413	1/2"UNC	20.0	160.0	110.0	1/2"UNC	4,500

Part no.		SIZE	C	L	L1	M	B.L. <sup>(1)</sup>
Material		(mm/inch)	(mm)	(mm)	(mm)	(thread)	(kgs)
SS304	SS316						
1931-1240	2931-1203	M4.0	8.5	52.0	33.5	M4	475
1311-5545	2311-5545	M4.5	8.5	48.0	27.0	M5	680
1311-5505	2931-1202	M5.0	10.0	62.0	39.0	M5	680
1311-5507	2311-5501	M6.0	12.0	77.0	50.0	M6	1,500
1311-5508	2311-5908	M8.0	14.0	105.0	66.5	M8	2,300
1311-5511	2311-5513	M10.0	17.0	128.5	83.5	M10	3,100
1311-5514	2311-5514	M12.0	20.0	160.0	110.0	M12	4,400
1311-5518	2311-5518	M16.0	22.0	202.5	137.5	M16	8,100
1311-5521	2311-5521	M20.0	28.0	232.0	147.0	M20	11,000
1311-5336	2311-5336	3/16"	10.0	62.0	39.0	3/16"	650
1311-5314	2311-5314	1/4"	12.0	77.0	50.0	1/4"	1,300
1311-5356	2311-5356	5/16"	14.0	105.0	66.5	5/16"	2,100
1311-5338	2311-5338	3/8"	17.0	128.5	83.5	3/8"	2,500
1311-5311	2311-5311	1/2"	20.0	160.0	110.0	1/2"	4,500
1311-5358	2311-5358	5/8"	22.0	202.5	137.5	5/8"	6,700
1311-5334	2311-5334	3/4"	28.0	232.0	147.0	3/4"	10,500
1311-5313	2311-5313	1/2"UNC	20.0	160.0	110.0	1/2"UNC	4,500







**BF311HL** (Left threaded hook)  
**BF311HR** (Right threaded hook)



## BF311HL, BF311HR

### Technical Data

Forging material : AISI304 - DIN 1.4301  
AISI 316 - DIN 1.4301  
Surface treatment : "E.P." (Electro polished)

### Field of application

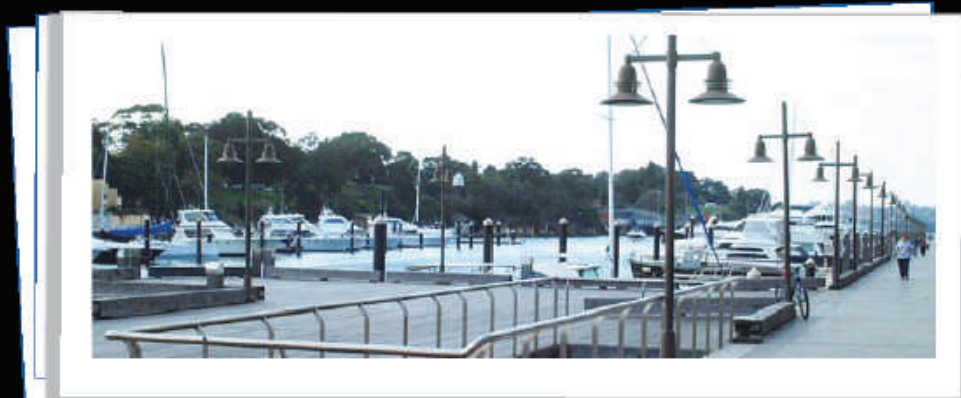
Left threaded hooks and Right threaded hooks are designed to be used primarily with turnbuckles.

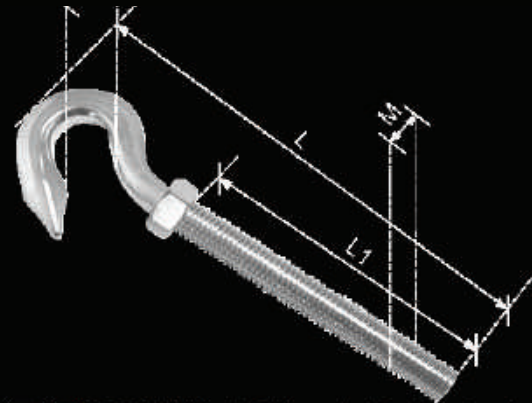
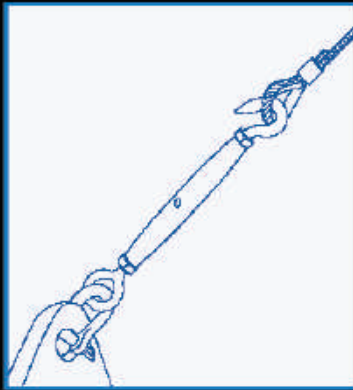
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.


Refer to page IV class load characteristics

Terminals		SIZE	L	L1	M	O	B.L.
(hook)							
<b>BF311HL</b>							
SS304	SS316						
1931-1044	2931-1044	M4.0	50.5	33.5	M4	5.5	10
1931-1454	2931-1454	M4.5	48.0	27.0	M5	6.3	13
1931-1215	2931-1215	M5.0	62.0	39.0	M5	5.5	13
1931-1216	2931-1216	M6.0	83.0	50.0	M6	6.5	35
1311-5708	2311-5708	M8.0	104.5	66.5	M8	8.0	65
1311-5709	2311-5709	M10.0	131.5	83.5	M10	11.2	80
1311-5712	2311-5712	M12.0	165.0	110.0	M12	14.0	140
1311-5716	2311-5716	M16.0	202.5	137.5	M16	17.0	240
1311-2012	2311-2012	M20.0	222.0	147.0	M20	22.0	350
1311-3163	2311-3163	3/16"	62.0	39.0	3/16"	5.5	13
1931-1104	2931-1103	1/4"	83.0	50.0	1/4"	6.5	35
1931-1527	2931-1526	5/16"	104.5	66.5	5/16"	8.0	65
1311-5738	2311-5738	3/8"	131.5	83.5	3/8"	11.2	80
1311-2215	2311-2215	1/2"	165.0	110.0	1/2"	14.0	140
1311-5801	2311-5801	5/8"	202.5	137.5	5/8"	17.0	240
1311-3401	2311-3401	3/4"	222.0	147.0	3/4"	22.0	350
1311-2115	2311-2117	1/2"UNC	165.0	110.0	1/2"UNC	14.0	140

Terminals		SIZE	L	L1	M	O	B.L.
(hook)							
<b>BF311HR</b>							
SS304	SS316						
1931-1043	2931-1043	M4.0	50.5	33.5	M4	5.5	10
1931-1453	2931-1453	M4.5	48.0	27.0	M5	6.3	13
1931-1225	2931-1224	M5.0	62.0	39.0	M5	5.5	13
1931-1226	2931-1227	M6.0	83.0	50.0	M6	6.5	35
1311-5808	2311-5805	M8.0	104.5	66.5	M8	8.0	65
1311-5809	2311-5809	M10.0	131.5	83.5	M10	11.2	80
1311-5812	2311-5812	M12.0	165.0	110.0	M12	14.0	140
1311-5816	2311-5816	M16.0	202.5	137.5	M16	17.0	240
1311-2013	2311-2013	M20.0	222.0	147.0	M20	22.0	350
1311-3164	2311-3164	3/16"	62.0	39.0	3/16"	5.5	13
1931-1201	2931-1201	1/4"	83.0	50.0	1/4"	6.5	35
1931-1507	2931-1506	5/16"	104.5	66.5	5/16"	8.0	65
1311-5838	2311-5838	3/8"	131.5	83.5	3/8"	11.2	80
1311-2216	2311-2216	1/2"	165.0	110.0	1/2"	14.0	140
1311-5802	2311-5802	5/8"	202.5	137.5	5/8"	17.0	240
1311-3402	2311-3402	3/4"	222.0	147.0	3/4"	22.0	350
1311-2116	2311-2116	1/2"UNC	165.0	110.0	1/2"UNC	14.0	140





 **BF311N/HL** (Left threaded hook and nut)  
**BF311N/HR** (Right threaded hook and nut)



## BF311N/HL, BF311N/HR

### Technical Data

Forging material: AISI304 - DIN 14501  
AISI316 - DIN 14401

Surface treatment: "E.P." (Electro polished)

### Field of application

Left threaded hooks and nuts and right threaded hooks and nuts are designed to be assembled with turnbuckles.

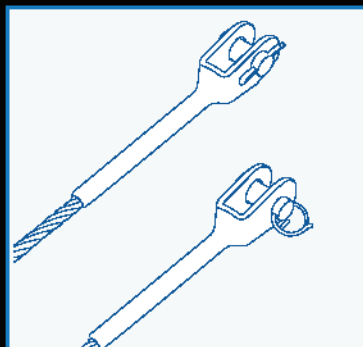
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV class B load characteristics.

Part no.		SIZE	L	L1	M	O	B.L. <sup>(1)</sup>
Hook	Nut	(mm/inch)	(mm)	(mm)	(thread)	(mm)	(kgs)
SS304	SS316	M4.0	50.5	33.5	M4	5.5	100
1311-5641	2311-5641	M4.5	48.0	27.0	M5	6.3	130
1311-5646	2311-5646	M5.0	62.0	39.0	M5	5.5	130
1311-5655	2311-5655	M6.0	83.0	50.0	M6	6.5	350
1311-5665	2311-5665	M8.0	104.5	66.5	M8	8.0	650
1311-5670	2311-5670	M10.0	131.5	83.5	M10	11.2	800
1311-5673	2311-5673	M12.0	165.0	110.0	M12	14.0	1,400
1311-5677	2311-5677	M16.0	202.5	137.5	M16	17.0	2,400
1311-5680	2311-5680	M20.0	222.0	147.0	M20	22.0	3,500
1311-1317	2311-1317	3/16"	62.0	39.0	3/16"	5.5	130
1311-1513	2311-1513	1/4"	83.0	50.0	1/4"	6.5	350
1311-1515	2311-1515	5/16"	104.5	66.5	5/16"	8.0	650
1311-1537	2311-1537	3/8"	131.5	83.5	3/8"	11.2	800
1311-1211	2311-1211	1/2"	165.0	110.0	1/2"	14.0	1,400
1311-1567	2311-1567	5/8"	202.5	137.5	5/8"	17.0	2,400
1311-1535	2311-1535	3/4"	222.0	147.0	3/4"	22.0	3,500
1311-1503	2311-1503	1/2"UNC	165.0	110.0	1/2"UNC	14.0	1,400

Part no.		SIZE	L	L1	M	O	B.L. <sup>(1)</sup>
Hook	Nut	(mm/inch)	(mm)	(mm)	(thread)	(mm)	(kgs)
SS304	SS316	M4.0	50.5	33.5	M4	5.5	100
1311-5640	2311-5640	M4.5	48.0	27.0	M5	6.3	130
1311-5605	2311-5605	M5.0	62.0	39.0	M5	5.5	130
1311-5607	2311-5607	M6.0	83.0	50.0	M6	6.5	350
1311-1503	2311-1504	M8.0	104.5	66.5	M8	8.0	650
1311-1510	2311-1510	M10.0	131.5	83.5	M10	11.2	800
1311-1512	2311-1512	M12.0	165.0	110.0	M12	14.0	1,400
1311-1517	2311-1517	M16.0	202.5	137.5	M16	17.0	2,400
1311-1520	2311-1520	M20.0	222.0	147.0	M20	22.0	3,500
1311-1316	2311-1316	3/16"	62.0	39.0	3/16"	5.5	130
1311-1514	2311-1514	1/4"	83.0	50.0	1/4"	6.5	350
1311-1516	2311-1516	5/16"	104.5	66.5	5/16"	8.0	650
1311-1538	2311-1538	3/8"	131.5	83.5	3/8"	11.2	800
1311-1212	2311-1212	1/2"	165.0	110.0	1/2"	14.0	1,400
1311-1558	2311-1558	5/8"	202.5	137.5	5/8"	17.0	2,400
1311-1534	2311-1534	3/4"	222.0	147.0	3/4"	22.0	3,500
1311-1502	2311-1502	1/2"UNC	165.0	110.0	1/2"UNC	14.0	1,400





**SF7803**

**Technical Data**

Forging material : AISI316 - DIN 1.4401  
 Production : SF7803 - Jaw - Cast

Pin - Forged  
 Accessory - See chart

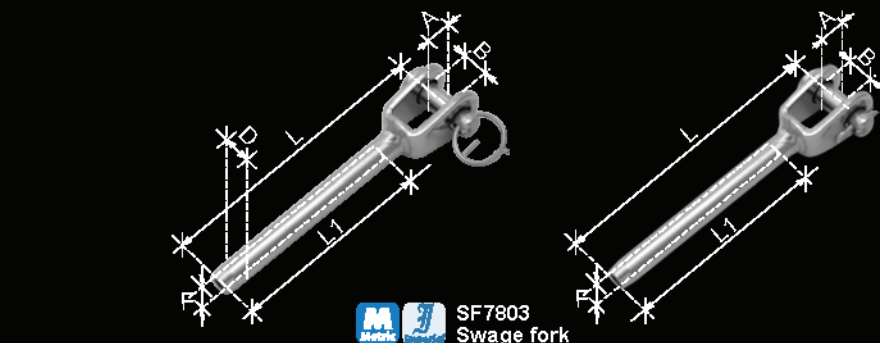
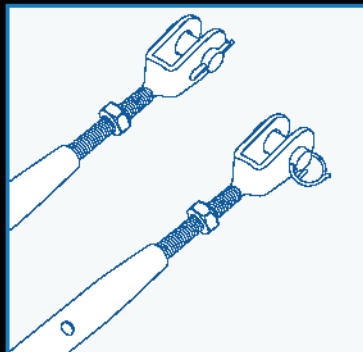
Surface treatment : "E.P." (Electro polished)

**Field of application**

Swage forks are designed for swaging of a loose end wire rope. Wire must be properly swaged by using a swaging machine.

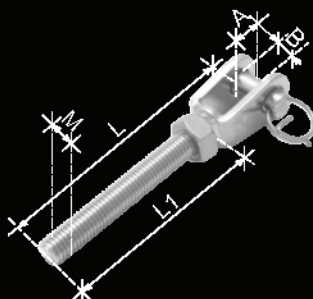


Swage fork

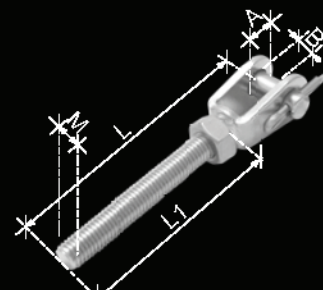


**SF7803**  
Swage fork

Item no.	<b>SF7803</b>	SIZE	Ø A	B	Ø D	DiaØCable	Ø F	L	L1	Accessory	P P C	B.L. (1)
Material	SS316	(mm/inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			(kgs)
6780-3002	2.0	5.00	7.0	5.53	2.0	2.20	53.5	32	Ring	1,500	1	700
6780-3025	2.5	5.00	7.0	5.53	2.5	2.70	62.0	35	Ring	1,500	2	700
6780-3003	3.0	6.00	8.0	6.35	3.0	3.30	68.0	38	Ring	1,000	3	1,250
6780-3004	4.0	8.00	11.0	7.54	4.0	4.30	77.0	45	Ring	500	3	1,800
6780-3005	5.0	9.00	12.0	9.12	5.0	5.30	87.0	51	Ring	250	3	2,650
6780-3006	6.0	12.00	14.5	12.54	6.0	6.35	109.0	64	Ring	150	n/a	4,000
6780-3007	7.0	12.00	14.5	14.30	7.0	7.30	116.0	70	Ring	150	n/a	5,800
6780-3008	8.0	14.28	15.0	16.13	8.0	8.40	148.0	80	Cotter pin	70	n/a	6,500
6780-3010	10.0	16.00	17.0	17.85	10.0	10.50	164.0	100	Cotter pin	50	n/a	9,000
6780-3012	12.0	19.00	20.0	21.44	12.0	12.50	215.0	144	Cotter pin	40	n/a	11,000
6780-3114	14.0	25.00	30.0	25.00	14.0	14.90	285.0	168	Cotter pin	10	n/a	13,000
6780-3116	16.0	25.00	30.0	28.17	16.0	17.10	313.0	192	Cotter pin	10	n/a	18,000
6780-3332	3/32"	5.00	7.0	5.53	3/32"	2.70	62.0	35	Ring	1,500	n/a	700
6780-3718	1/8"	6.00	8.0	6.35	1/8"	3.50	68.0	38	Ring	1,000	n/a	1,250
6780-3532	5/32"	8.00	11.0	7.54	5/32"	4.30	77.0	45	Ring	500	n/a	1,800
6780-3316	3/16"	9.00	12.0	9.12	3/16"	5.10	87.0	51	Ring	250	n/a	2,650
6780-3732	7/32"	9.00	12.0	10.84	7/32"	5.90	93.0	57	Ring	150	n/a	3,000
6780-3714	1/4"	12.00	14.5	12.54	1/4"	6.70	109.0	64	Ring	150	n/a	4,000
6780-3615	5/16"	14.28	15.0	16.13	5/16"	8.40	148.0	80	Cotter pin	70	n/a	7,250
6780-3318	3/8"	16.00	17.0	17.85	3/8"	9.90	154.0	90	Cotter pin	50	n/a	8,400



**BF312P/JL**  
Left threaded fork



**BF312P/JR**  
Right threaded fork



**BF312P/JL, BF312P/JR**

**Technical Data**

Forging material : AISI316 - DIN 1.4401  
 Production : BF312P/JL - Jaw - Cast

Pin - Forged  
 Accessory - See chart  
 BF312P/JR - Shackle - Cast  
 Pin - Forged  
 Accessory - See chart

Surface treatment : "E.P." (Electro polished)

**Field of application**

Left threaded fork and Right threaded forks are designed for assembly with the turnbuckles or the other fittings together. Selection of left hand or right hand thread must be carefully checked.

**Note:**(1) Standard safety factor for working load is 1/4 of breaking load.

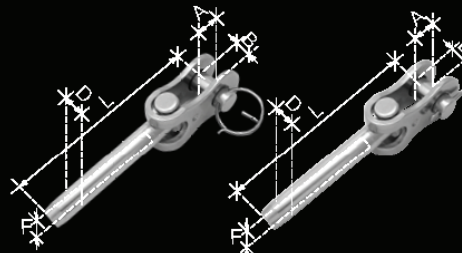
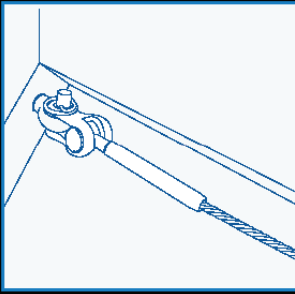
Refer to page IV - class 5 load characteristics

**Note:**(2) Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 9 load characteristics

Item no.	<b>BF312P/JL</b>	SIZE	Ø A	B	L	L1	M	Accessory	P P C	B.L. (2)
Material	SS316	(mm/inch)	(mm)	(mm)	(mm)	(mm)	(thread)			(kgs)
6312-3318	<b>M5</b>	5	7.0	56.50	39	M5	Ring	1,000	1	250
6931-2206	<b>M6</b>	6	8.0	68.50	50	M6	Ring	500	2	1,400
6931-2256	<b>M8</b>	8	11.0	80.00	57	M8	Ring	400	3	2,200
6312-3319	<b>M10</b>	9	12.0	98.50	68	M10	Ring	300	3	3,450
6312-0612	<b>M12</b>	12	14.5	121.25	82	M12	Ring	180	n/a	5,000
6931-2614	<b>M14</b>	14	15.0	136.00	95	M14	Cotter pin	100	n/a	6,400
6312-0617	<b>M16</b>	16	17.0	143.00	102	M16	Cotter pin	50	n/a	8,000
6312-0618	<b>M20</b>	19	20.0	160.00	113	M20	Cotter pin	40	n/a	10,500
6312-0623	<b>M22</b>	25	30.0	217.50	146	M22	Cotter pin	n/a	n/a	15,000
6312-0625	<b>M24</b>	25	30.0	215.50	144	M24	Cotter pin	25	n/a	18,000

Item no.	<b>BF312P/JR</b>	SIZE	Ø A	B	L	L1	M	Accessory	P P C	B.L. (2)
Material	SS316	(mm/inch)	(mm)	(mm)	(mm)	(mm)	(thread)			(kgs)
6931-2336	<b>M5</b>	5	7.0	56.50	39	M5	Ring	1,000	1	250
6931-2306	<b>M6</b>	6	8.0	68.50	50	M6	Ring	500	2	1,400
6931-2208	<b>M8</b>	8	11.0	80.00	57	M8	Ring	400	3	2,200
6931-2210	<b>M10</b>	9	12.0	98.50	68	M10	Ring	300	3	3,450
6312-6012	<b>M12</b>	12	14.5	121.25	82	M12	Ring	180	n/a	5,000
6931-2214	<b>M14</b>	14	15.0	136.00	95	M14	Cotter pin	100	n/a	6,400
6312-0619	<b>M16</b>	16	17.0	143.00	102	M16	Cotter pin	50	n/a	8,000
6312-0620	<b>M20</b>	19	20.0	160.00	113	M20	Cotter pin	30	n/a	10,500
6312-0629	<b>M24</b>	25	30.0	215.50	144	M24	Cotter pin	25	n/a	18,000



**S7805**  
Swage toggle

**SF7805**  
Swage toggle



### S7805, SF7805

#### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : S7805 - Terminal - Cast  
                   Toggle - Forged  
                   Accessory - See chart  
 SF7805 - Terminal/Toggle - Forged  
                   Accessory - E-Ring  
 Surface treatment : "E.P." (Electro polished)

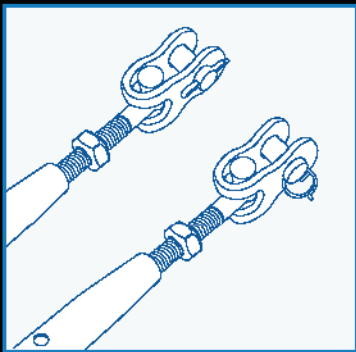
#### Field of application

Swage toggles are designed for swaging of a loose end wire rope. Wire must be properly swaged by using a swaging machine.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 5 load characteristics

Partno.	SIZE	Ø A	B	Ø D	Dia Ø Cable	Ø F	L	Accessory	P/B/C	B.L. (1)	
Material	(mm/inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			(kgs)	
<b>S7805-5002</b>	2.0	5	6	5.53	2.0	2.20	2.20	Ring	1,200	1	400
<b>S7805-5025</b>	2.5	5	6	5.53	2.5	2.70	2.70	Ring	1,200	2	400
<b>S7805-5003</b>	3.0	6	7	6.35	3.0	3.30	3.30	Ring	700	2	670
<b>S7805-5004</b>	4.0	8	10	7.54	4.0	4.30	4.30	Ring	400	3	1,400
<b>S7805-5005</b>	5.0	9	12	9.12	5.0	5.30	5.30	Ring	200	3	1,700
<b>S7805-5006</b>	6.0	12	13	12.54	6.0	6.35	6.35	Ring	150	n/a	4,000
<b>S7805-5008</b>	8.0	16	17	16.13	8.0	8.40	8.40	Cotter pin	50	n/a	7,000
<b>S7805-5010</b>	10.0	19	20	17.85	10.0	10.50	10.50	Cotter pin	40	n/a	7,500
<b>S7805-5332</b>	3/32"	5	6	5.53	3/32"	2.70	2.70	Ring	1,200	n/a	400
<b>S7805-5108</b>	1/8"	6	7	6.35	1/8"	3.50	3.50	Ring	700	n/a	670
<b>S7805-5532</b>	5/32"	8	10	7.54	5/32"	4.30	4.30	Ring	400	n/a	1,400
<b>S7805-5316</b>	3/16"	9	12	9.12	3/16"	5.10	5.10	Ring	200	n/a	1,700
<b>S7805-5104</b>	1/4"	12	13	12.54	1/4"	6.70	6.70	Cotter pin	150	n/a	4,000
<b>S7805-5516</b>	5/16"	16	17	16.13	5/16"	8.40	8.40	Cotter pin	50	n/a	7,000
<b>S7805-5308</b>	3/8"	19	20	17.85	3/8"	9.90	9.90	Cotter pin	25	n/a	7,500



**B3125/L**  
Left threaded toggle

**B3125/R**  
Right threaded toggle



### B3125/L, B3125/R

#### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : B3125/L - Toggle - Forged  
                   Accessory - See chart  
 B3125/R - Toggle - Forged  
                   Accessory - See chart  
 Surface treatment : "E.P." (Electro polished)

#### Field of application

Threaded toggles are designed for assembly with the turnbuckles or other fittings together. Selection of left hand or right hand thread must be carefully checked.

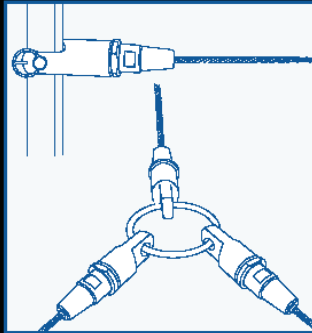
**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 9 load characteristics

Partno.	SIZE	Ø A	B	Ø D	Dia Ø Cable	Ø F	L	Accessory	P/B/C	B.L. (1)
Material	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			(kgs)
<b>F 2780-5003</b>	3	6	6.4	6.30	3	3.3	3.30	600	1	1,200
<b>F 2780-5004</b>	4	8	9.0	7.50	4	4.3	4.30	300	2	2,000
<b>F 2780-5005</b>	5	10	11.0	9.08	5	5.3	5.30	200	2	3,000
<b>F 2780-5006</b>	6	12	13.0	12.50	6	6.3	6.30	60	3	4,500
<b>F 2780-5007</b>	7	12	13.0	14.25	7	7.4	7.40	50	3	6,000
<b>F 2780-5008</b>	8	14	13.0	16.08	8	8.4	8.40	50	n/a	7,500
<b>F 2780-5010</b>	10	16	18.0	17.80	10	10.5	10.50	40	n/a	8,500
<b>F 2780-5012</b>	12	19	22.0	21.40	12	12.5	12.50	25	n/a	11,500
<b>F 2780-5014</b>	14	22	24.0	24.95	14	14.9	14.90	15	n/a	18,000
<b>F 2780-5016</b>	16	25	28.0	28.10	16	17.1	17.10	10	n/a	20,000

Partno.	SIZE	Ø A	B	L	L1	M	Accessory	P/B/C	B.L. (2)	
Material	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			(kgs)	
<b>B3125-5055</b>	M5	5.00	6	63	42	M5	Ring	1,000	1	500
<b>B3125-5066</b>	M6	6.00	7	72	48	M6	Ring	350	2	900
<b>B3125-2580</b>	M8	8.00	10	88	56	M8	Ring	350	3	1,650
<b>B3125-2501</b>	M10	9.00	12	106	67	M10	Ring	180	3	2,500
<b>B3125-2521</b>	M12	12.00	13	125	81	M12	Ring	60	n/a	3,700
<b>B3125-2541</b>	M14	14.28	15	142	89	M14	Cotter pin	50	n/a	5,000
<b>B3125-2561</b>	M16	16.00	17	162	103	M16	Cotter pin	45	n/a	6,950
<b>B3125-2502</b>	M20	19.00	20	186	115	M20	Cotter pin	30	n/a	10,000

Partno.	SIZE	Ø A	B	L	L1	M	Accessory	P/B/C	B.L. (2)	
Material	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			(kgs)	
<b>B3125-5055</b>	M5	5.00	6	63	42	M5	Ring	1,000	1	500
<b>B3125-5066</b>	M6	6.00	7	72	48	M6	Ring	350	2	900
<b>B3125-2580</b>	M8	8.00	10	88	56	M8	Ring	350	3	1,650
<b>B3125-2501</b>	M10	9.00	12	106	67	M10	Ring	180	3	2,500
<b>B3125-2521</b>	M12	12.00	13	125	81	M12	Ring	60	n/a	3,700
<b>B3125-2541</b>	M14	14.28	15	142	89	M14	Cotter pin	50	n/a	5,000
<b>B3125-2561</b>	M16	16.00	17	162	103	M16	Cotter pin	45	n/a	6,950
<b>B3125-2502</b>	M20	19.00	20	186	115	M20	Cotter pin	30	n/a	10,000



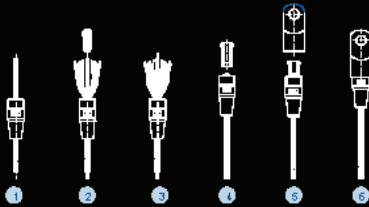
## S811, S812

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S811 - Terminal - Cast  
                   S812 - Terminal - Cast  
 Cable construction : 1x19  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Swageless eye terminals are designed for easy assembly of loose wire rope. No Swaging machine is needed during assembly process. Once assembled it is not expected to sustain high loads.



### Instructions for assembly of S811



### Instructions for assembly of S812



## S811M, S812M

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S811M - Terminal - Cast  
                   S812M - Terminal - Cast  
 Cable construction : See chart  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Micro eye swageless terminals are designed for a new smaller profile from our original swageless system. This is available for both 7x7 configuration cable and 1x19 configuration cable.

**Note<sup>(1)</sup>** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 4 load characteristics

**Note<sup>(2)</sup>** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 5 load characteristics



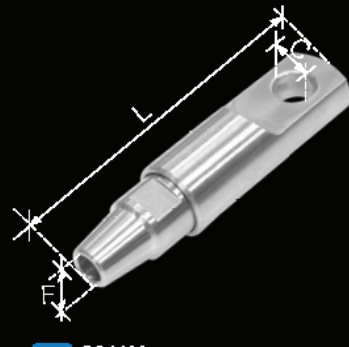
**S811**  
Eye swageless terminal



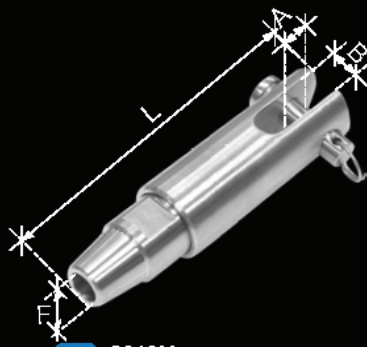
**S812**  
Fork swageless terminal

Term.no.	S811	SIZE	Ø C	Ø F	L	Dia Ø Cable		P B C	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)			(kg/s)
	6811-0003	3	6.00	3.5	64	3	600	2	300
	6811-0004	4	8.00	4.5	71	4	250	2	500
	6811-0005	5	10.00	6.0	91	5	200	3	900
	6811-0006	6	12.75	7.0	98	6	135	n/a	1,900
	6811-0008	8	16.00	9.0	121	8	75	n/a	2,250
	6811-0010	10	16.00	11.0	152	10	40	n/a	3,300

Term.no.	S812	SIZE	Ø A	B	F	L	Dia Ø Cable		P B C	B.L. <sup>(2)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			(kg/s)
	6812-0003	3	5	6	3.5	69	3	400	2	300
	6812-0004	4	6	8	4.5	76	4	250	2	500
	6812-0005	5	8	10	6.0	98	5	200	3	900
	6812-0006	6	10	11	7.0	106	6	100	n/a	1,200
	6812-0008	8	11	14	9.0	134	8	60	n/a	2,250
	6812-0010	10	13	14	11.0	166	10	30	n/a	3,300



**S811M**  
Eye swageless terminal (Micro)

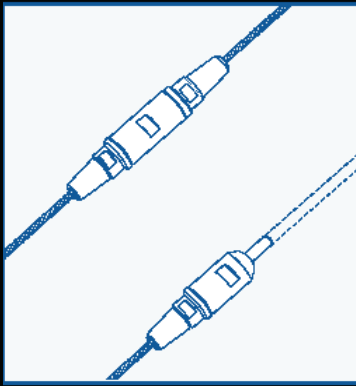


**S812M**  
Fork swageless terminal (Micro)

Term.no.	S811M	SIZE	Ø C	Ø F	L	Dia Ø Cable	Cable construction	P B C	B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)			(kg/s)
	6811-0319	3	5.5	3.4	47.7	3	1x19	2	300
	6811-0377	3	5.5	3.4	47.7	3	7x7	2	300
	6811-0419	4	6.5	4.4	55.1	4	1x19	3	500
	6811-0477	4	6.5	4.4	55.1	4	7x7	n/a	500
	6811-0519	5	8.5	5.4	64.6	5	1x19	n/a	900
	6811-0577	5	8.5	5.4	64.6	5	7x7	n/a	900
	6811-0619	6	10.5	6.4	82.7	6	1x19	n/a	1,900
	6811-0677	6	10.5	6.4	82.7	6	7x7	n/a	1,900
	6811-0819	8	12.5	8.5	100.7	8	1x19	n/a	2,250
	6811-0877	8	12.5	8.5	100.7	8	7x7	n/a	2,250
	6811-1019	10	14.5	10.5	117.8	10	1x19	n/a	3,300
	6811-1077	10	14.5	10.5	117.8	10	7x7	n/a	3,300

Term.no.	S812M	SIZE	Ø A	B	F	L	Dia Ø Cable	Cable construction	P B C	B.L. <sup>(2)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			(kg/s)
	6812-1003	3	4	5	3.4	47.3	3	1x19	2	225
	6812-7003	3	4	5	3.4	47.3	3	7x7	2	225
	6812-1004	4	5	6	4.4	54.7	4	1x19	3	375
	6812-7004	4	5	6	4.4	54.7	4	7x7	n/a	375
	6812-1005	5	6	6	5.4	64.3	5	1x19	n/a	675
	6812-7005	5	6	6	5.4	64.3	5	7x7	n/a	675
	6812-1006	6	7	7	6.4	82.3	6	1x19	n/a	900
	6812-7006	6	7	7	6.4	82.3	6	7x7	n/a	900
	6812-1008	8	8	8	8.5	100.4	8	1x19	n/a	1,690
	6812-7008	8	8	8	8.5	100.4	8	7x7	n/a	1,690
	6812-1010	10	10	10	10.5	117.2	10	1x19	n/a	2,475
	6812-7010	10	10	10	10.5	117.2	10	7x7	n/a	2,475

# OPI Terminals & Turnbuckles



## S813, S814, S814L

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S813 - Terminal - Cast  
                   S814 - Terminal - Cast  
                   S814L - Terminal - Cast  
 Cable construction : 1x19  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Swageless joiners and swageless studs are designed for easy assembly of loose wire rope. No Swaging machine is needed during assembly process. Once assembled it is not expected to sustain high loads.

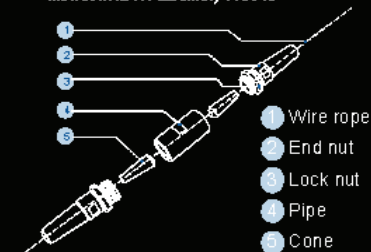
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 6 load characteristics

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 10 load characteristics

### Instructions for assembly of S813



1. Always wear safety goggles and gloves when working with wire rope.

2. Never stand on, drive over or put things on wire rope.



## S814N, S814N/L

### Technical Data

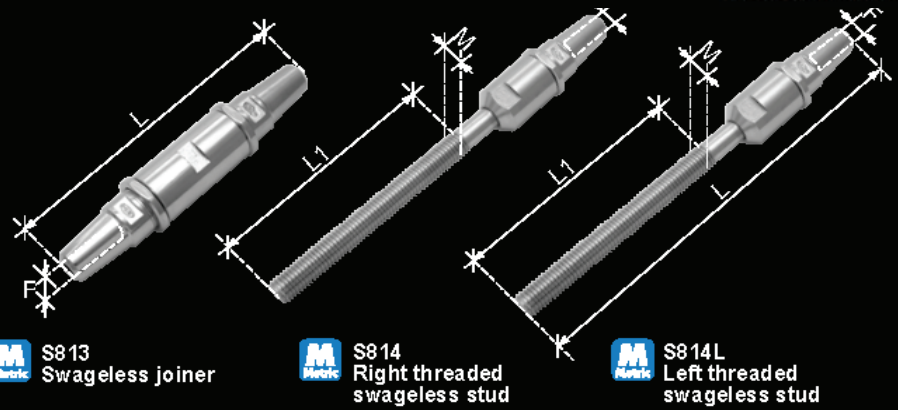
Casting material : AISI316 - DIN 1.4408  
 Production : S814N - Terminal - Cast  
                   S814N/L - Terminal - Cast  
 Cable construction : 1x19  
 Surface treatment : "M.F." (Matte finished)

### Field of application

Swageless studs with nuts are used for wire rope where the use of a swaging machine is not necessary. They are assembled with a pair of spanners and can be taken off and reused.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.


Refer to page IV - class 10 load characteristics





**S813**  
Swageless joiner

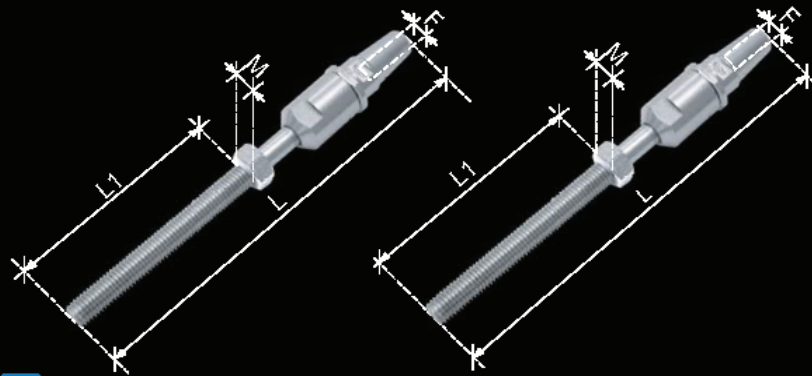
**S814**  
Right threaded swageless stud

**S814L**  
Left threaded swageless stud

Item no.	<b>S813</b>	SIZE	Ø F	L	Dia Ø Cable		B.L. <sup>(1)</sup>
(Material)	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	6813-0003	3	3.5	86	3	400	300
	6813-0004	4	4.5	93	4	250	500
	6813-0005	5	6.0	128	5	200	900
	6813-0006	6	7.0	132	6	100	1,900
	6813-0008	8	9.0	165	8	50	2,250
	6813-0010	10	11.0	212	10	30	3,300


Item no.	<b>S814</b>	SIZE	Ø F	L	L1	M	Dia Ø Cable		B.L. <sup>(2)</sup>
(Material)	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	6814-0003	3	3.5	120	60	M6	3	350	300
	6814-0004	4	4.5	129	63	M8	4	200	500
	6814-0005	5	6.0	172	85	M10	5	200	900
	6814-0006	6	7.0	200	107	M12	6	100	1,900
	6814-0008	8	9.0	242	126	M16	8	50	2,250
	6814-0010	10	11.0	267	126	M16	10	30	3,300

Item no.	<b>S814L</b>	SIZE	Ø F	L	L1	M	Dia Ø Cable		B.L. <sup>(2)</sup>
(Material)	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	6814-1003	3	3.5	120	60	M6	3	n/a	300
	6814-1004	4	4.5	129	63	M8	4	200	500
	6814-1005	5	6.0	172	85	M10	5	150	900
	6814-1006	6	7.0	200	107	M12	6	100	1,900
	6814-1008	8	9.0	242	126	M16	8	50	2,250
	6814-1010	10	11.0	267	126	M16	10	30	3,300

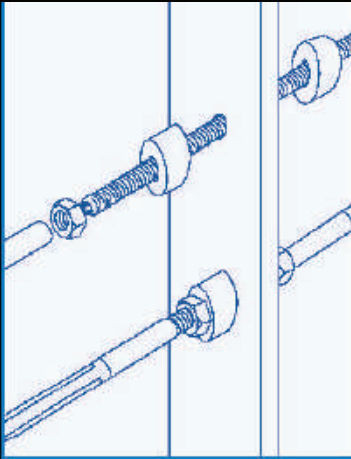


**S814N**  
Right threaded swageless stud with nut

**S814N/L**  
Left threaded swageless stud with nut

Item no.	<b>S814N</b>	SIZE	Ø F	L	L1	M	Dia Ø Cable		B.L. <sup>(2)</sup>
(Material)	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	6814-2003	3	3.5	120	60	M6	3	400	300
	6814-2004	4	4.5	129	63	M8	4	250	500
	6814-2005	5	6.0	172	85	M10	5	200	900
	6814-2006	6	7.0	200	107	M12	6	100	1,900
	6814-2008	8	9.0	242	126	M16	8	50	2,250
	6814-2010	10	11.0	267	126	M16	10	30	3,300

Item no.	<b>S814N/L</b>	SIZE	Ø F	L	L1	M	Dia Ø Cable		B.L. <sup>(2)</sup>
(Material)	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	6814-3003	3	3	120	60	M6	3	400	300
	6814-3004	4	4	129	63	M8	4	250	500
	6814-3005	5	5	172	85	M10	5	200	900
	6814-3006	6	6	200	107	M12	6	100	1,900
	6814-3008	8	8	242	126	M16	8	50	2,250
	6814-3010	10	10	267	126	M16	10	30	3,300



## LTS, RTS

### Technical Data

Forging material : AISI 316 - DIN 1.4401  
 Surface treatment : "MLP" (Machine Polished)

### Field of application

Left threaded studs and right threaded studs are designed for assembly with mechanical threaded end fittings. Threaded stud length can be cut and adjusted accordingly.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 8 load characteristics

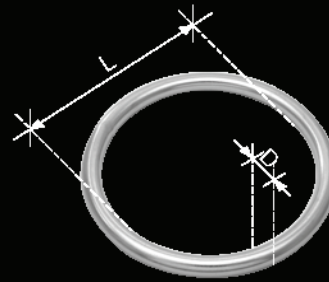
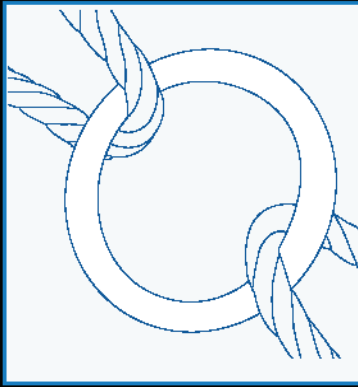



LTS Left threaded stud  
 RTS Right threaded stud

Terminals	LTS	SIZE	L	B.L. <sup>(1)</sup>
Material	SS316	(mm/inch)	(mm)	(kgs)
	2610-1000	M6	1,000	1,200
	2610-1000	M8	1,000	2,200
	2101-1000	M10	1,000	3,200
	2122-1000	M12	1,000	5,000
	2162-1000	M16	1,000	8,000
	2202-1000	M20	1,000	12,000
	2242-1000	M24	1,000	19,000
	2104-1000	1/4"-20UNC	1,000	1,200
	2506-1000	5/16"-18UNC	1,000	2,200
	2318-1000	3/8"-16	1,000	3,000
	2124-1000	1/2"-12	1,000	5,200
	2102-1000	1/2"-13UNC	1,000	5,200
	2102-2100	1/2"-20UNF	1,000	5,200

Terminals	RTS	SIZE	L	B.L. <sup>(1)</sup>
Material	SS316	(mm/inch)	(mm)	(kgs)
	2600-1000	M6	1,000	1,200
	2600-1000	M8	1,000	2,200
	2100-1000	M10	1,000	3,200
	2120-1000	M12	1,000	5,000
	2160-1000	M16	1,000	8,000
	2200-1000	M20	1,000	12,000
	2240-1000	M24	1,000	19,000
	2142-1000	1/4"-20UNC	1,000	1,200
	2516-1000	5/16"-18UNC	1,000	2,200
	2308-1000	3/8"-16	1,000	3,000
	2112-1000	1/2"-12	1,000	5,200
	2123-1000	1/2"-13UNC	1,000	5,200
	2121-1000	1/2"-20UNF	1,000	5,200





 **SF317**  
Round ring

## SF317

### Technical Data

Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : SF317 - Ring - Welded  
Surface treatment : "E.P." (Electro polished)


### Field of application

Round rings are designed for assembly into many fittings. Rings are all made by TIG Argon welding.

**Note:**<sup>(1)</sup> See Note: E1

Refer to page IV - class 11 load characteristics

**Note E1** : Breaking load is described as the load point where welding fails. Deformation load is however lower and is dependent on the diameter of rod and circumference of ring. A general rule is to assume deformation load at around 1/5 of breaking load.

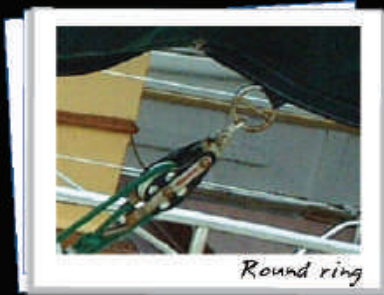
Item no.	SF317		SIZE	Ø D	L		PBC	B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)			(kgs)
4317-0310		6317-0310	3*10	3	10	8,000	1	650
4317-0315		6317-0315	3*15	3	15	5,000	1	650
4317-0320		6317-0320	3*20	3	20	3,000	1	650
4317-0325		6317-0325	3*25	3	25	3,000	1	650
4317-0330		6317-0330	3*30	3	30	2,000	1	650
4317-0335		6317-0335	3*35	3	35	2,000	1	650
4317-0340		6317-0340	3*40	3	40	1,500	1	650
4317-0420		6317-0420	4*20	4	20	2,500	2	1,000
4317-0425		6317-0425	4*25	4	25	2,000	2	1,000
4317-0430		6317-0430	4*30	4	30	1,600	2	1,000
4317-0435		6317-0435	4*35	4	35	1,600	2	1,000
4317-0440		6317-0440	4*40	4	40	1,500	2	1,000
4317-0520		6317-0520	5*20	5	20	1,000	3	2,000
4317-0525		6317-0525	5*25	5	25	2,000	3	2,000
4317-0530		6317-0530	5*30	5	30	1,500	3	2,000
4317-0535		6317-0535	5*35	5	35	1,200	3	2,000
4317-0540		6317-0540	5*40	5	40	1,000	3	2,000
4317-0545		6317-0545	5*45	5	45	700	3	2,000
4317-0550		6317-0550	5*50	5	50	500	5	2,000
4317-0560		6317-0560	5*60	5	60	600	5	2,000
4317-0565		6317-0565	5*65	5	65	400	5	2,000
4317-0625		6317-0625	6*25	6	25	350	n/a	2,700
4317-0630		6317-0630	6*30	6	30	1,000	n/a	2,700
4317-0635		6317-0635	6*35	6	35	1,000	n/a	2,700
4317-0640		6317-0640	6*40	6	40	800	n/a	2,700
4317-0645		6317-0645	6*45	6	45	600	n/a	2,700
4317-0650		6317-0650	6*50	6	50	500	n/a	2,700
4317-0655		6317-0655	6*55	6	55	500	n/a	2,700
4317-0660		6317-0660	6*60	6	60	400	n/a	2,700
4317-0680		6317-0680	6*80	6	80	300	n/a	2,700
4317-0690		6317-0690	6*90	6	90	200	n/a	2,700
4317-0740		6317-0740	7*40	7	40	250	n/a	3,200
4317-0745		6317-0745	7*45	7	45	500	n/a	3,200
4317-0750		6317-0750	7*50	7	50	500	n/a	3,200
4317-0755		6317-0755	7*55	7	55	400	n/a	3,200
4317-0760		6317-0760	7*60	7	60	300	n/a	3,200
4317-0765		6317-0765	7*65	7	65	250	n/a	3,200
4317-0830		6317-0830	8*30	8	30	250	n/a	5,000
4317-0835		6317-0835	8*35	8	35	500	n/a	5,000
4317-0840		6317-0840	8*40	8	40	500	n/a	5,000
4317-0845		6317-0845	8*45	8	45	300	n/a	5,000
4317-0850		6317-0850	8*50	8	50	250	n/a	5,000
4317-0855		6317-0855	8*55	8	55	300	n/a	5,000
4317-0860		6317-0860	8*60	8	60	250	n/a	5,000
4317-0865		6317-0865	8*65	8	65	200	n/a	5,000
4317-0870		6317-0870	8*70	8	70	200	n/a	5,000
4317-0875		6317-0875	8*75	8	75	250	n/a	5,000
4317-0880		6317-0880	8*80	8	80	150	n/a	5,000
4317-0890		6317-0890	8*90	8	90	150	n/a	5,000
4317-0810		6317-0810	8*100	8	100	100	n/a	5,000
4317-0930		6317-0930	9*30	9	30	400	n/a	6,200
4317-0950		6317-0950	9*50	9	50	200	n/a	6,200
4317-0960		6317-0960	9*60	9	60	250	n/a	6,200
4317-0965		6317-0965	9*65	9	65	125	n/a	6,200
4317-0970		6317-0970	9*70	9	70	150	n/a	6,200
4317-0980		6317-0980	9*80	9	80	100	n/a	6,200





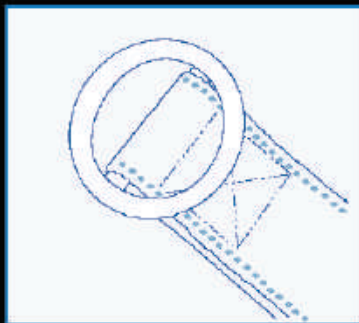


**SF317**  
Round ring  
(Continue from previous page)



Round ring

Terminology		SIZE (mm)	Ø D (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS304					
4317-0990	6317-0990	9*90	9	90	80	6,200
4317-1040	6317-1040	10*40	10	40	250	8,500
4317-1050	6317-1050	10*50	10	50	150	8,500
4317-1055	6317-1055	10*55	10	55	125	8,500
4317-1060	6317-1060	10*60	10	60	150	8,500
4317-1065	6317-1065	10*65	10	65	130	8,500
4317-1070	6317-1070	10*70	10	70	100	8,500
4317-1075	6317-1075	10*75	10	75	100	8,500
4317-1080	6317-1080	10*80	10	80	100	8,500
4317-1090	6317-1090	10*90	10	90	70	8,500
4317-1010	6317-1010	10*100	10	100	75	8,500
4317-1012	6317-1012	10*120	10	120	45	8,500
4317-1014	6317-1014	10*140	10	140	35	8,500
4317-1260	6317-1260	12*60	12	60	125	10,000
4317-1265	6317-1265	12*65	12	65	120	10,000
4317-1270	6317-1270	12*70	12	70	100	10,000
4317-1275	6317-1275	12*75	12	75	80	10,000
4317-1280	6317-1280	12*80	12	80	80	10,000
4317-1290	6317-1290	12*90	12	90	100	10,000
4317-1210	6317-1210	12*100	12	100	50	10,000
4317-1211	6317-1211	12*110	12	110	45	10,000
4317-1212	6317-1212	12*120	12	120	40	10,000
4317-1214	6317-1214	12*140	12	140	25	10,000
4317-1355	6317-1355	13*55	13	55	125	11,500
4317-1360	6317-1360	13*60	13	60	100	11,500
4317-1365	6317-1365	13*65	13	65	90	11,500
4317-1370	6317-1370	13*70	13	70	70	11,500
4317-1380	6317-1380	13*80	13	80	50	11,500
4317-1390	6317-1390	13*90	13	90	50	11,500
4317-1310	6317-1310	13*100	13	100	50	11,500
4317-1312	6317-1312	13*120	13	120	30	11,500
4317-1313	6317-1313	13*130	13	130	35	11,500
4317-1314	6317-1314	13*140	13	140	35	11,500
4317-1315	6317-1315	13*150	13	150	35	11,500
4317-1316	6317-1316	13*160	13	160	20	11,500



**SF3171**  
Round ring  
(center cross bar)

**SF3171**

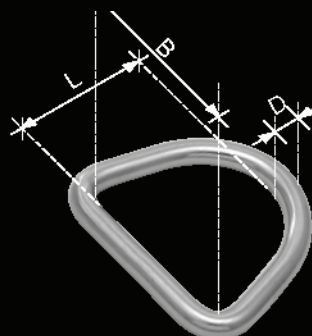
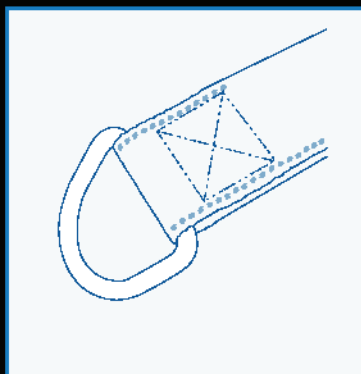
**Technical Data**  
Forging material : AISI316 - DIN 1.4401  
Production : SF3171 - Ring - Welded  
Surface treatment : "E.P." (Electro polished)

**Field of application**  
Round rings (center cross bar) are designed for assembly into many fittings. Rings are all made by IIG Argon welding.

**Note:**<sup>(1)</sup> See Note : E1 on page E1

Refer to page IV - class II load characteristics

Terminology		SIZE (mm)	D (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316					
6317-1630	6*30	6	30	800	2,700	
6317-1640	6*40	6	40	600	2,700	
6317-1840	8*40	8	40	250	5,000	
6317-1850	8*50	8	50	250	5,000	
6317-1960	9*60	9	60	150	6,200	
6317-1150	10*50	10	50	130	8,500	
6317-1106	10*60	10	60	125	8,500	
6317-1107	10*70	10	70	100	8,500	
6317-1108	10*80	10	80	100	8,500	
6317-1125	12*50	12	50	n/a	10,000	
6317-1126	12*65	12	65	110	10,000	
6317-1128	12*80	12	80	60	10,000	



 **SF3250**  
Dee ring



## SF3250

### Technical Data

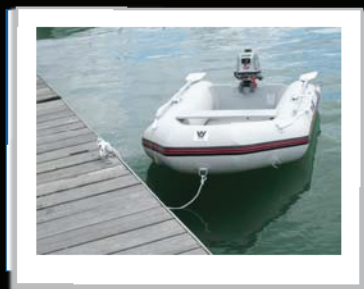
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : SF3250 - Ring - Welded  
Surface treatment : "E.P." (Electro polished)


### Field of application

Dee rings are designed for assembly into many fittings. Rings are all made by TIG Argon welding.

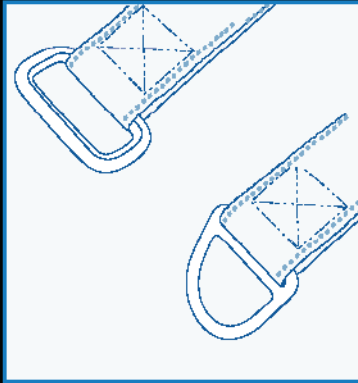
**Note:**<sup>(1)</sup> See Note : E1 on page E1

Refer to page IV - class 1 load characteristics



Remno.	SF3250		SIZE	B	Ø D	L		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
4325-0315		6325-0315	3*15	16	3	14	6,400	600
4325-0320		6325-0320	3*20	20	3	17	4,000	600
4325-0325		6325-0325	3*25	26	3	22	3,000	600
4325-0330		6325-0330	3*30	30	3	25	2,400	600
4325-0420		6325-0420	4*20	20	4	17	3,000	800
4325-0425		6325-0425	4*25	27	4	22	2,000	800
4325-0430		6325-0430	4*30	30	4	25	1,500	800
4325-0435		6325-0435	4*35	35	4	30	1,500	800
4325-0440		6325-0440	4*40	39	4	34	1,500	800
4325-0450		6325-0450	4*50	51	4	43	800	800
4325-0525		6325-0525	5*25	26	5	22	1,800	1,000
4325-0530		6325-0530	5*30	30	5	25	1,200	1,000
4325-0535		6325-0535	5*35	35	5	30	1,200	1,000
4325-0540		6325-0540	5*40	39	5	34	1,000	1,000
4325-0545		6325-0545	5*45	45	5	38	750	1,000
4325-0550		6325-0550	5*50	52	5	43	450	1,000
4325-0560		6325-0560	5*60	60	5	51	400	1,000
4325-0625		6325-0625	6*25	26	6	22	1,000	1,800
4325-0630		6325-0630	6*30	30	6	25	1,200	1,800
4325-0635		6325-0635	6*35	35	6	30	700	1,800
4325-0640		6325-0640	6*40	39	6	34	700	1,800
4325-0645		6325-0645	6*45	45	6	38	600	1,800
4325-0650		6325-0650	6*50	51	6	43	500	1,800
4325-0655		6325-0655	6*55	55	6	47	450	1,800
4325-0660		6325-0660	6*60	60	6	51	300	1,800
4325-0670		6325-0670	6*70	70	6	60	250	1,800
4325-0750		6325-0750	7*50	51	7	43	400	2,200
4325-0845		6325-0845	8*45	45	8	38	400	2,800
4325-0850		6325-0850	8*50	51	8	43	300	2,800
4325-0855		6325-0855	8*55	55	8	47	250	2,800
4325-0860		6325-0860	8*60	60	8	51	250	2,800
4325-0865		6325-0865	8*65	65	8	55	250	2,800
4325-0870		6325-0870	8*70	70	8	60	200	2,800
4325-0875		6325-0875	8*75	75	8	64	150	2,800
4325-0880		6325-0880	8*80	80	8	68	200	2,800
4325-0960		6325-0960	9*60	60	9	52	150	3,500
4325-0970		6325-0970	9*70	70	9	60	175	3,500
4325-0150		6325-0150	10*50	50	10	43	150	5,000
4325-0160		6325-0160	10*60	60	10	51	150	5,000
4325-0265		6325-0265	10*65	65	10	55	150	5,000
4325-0170		6325-0170	10*70	70	10	60	150	5,000
4321-0180		6321-0180	10*80	80	10	68	80	5,000
4325-0190		6325-0190	10*90	90	10	77	70	5,000
4325-0110		6325-0110	10*100	102	10	87	75	5,000





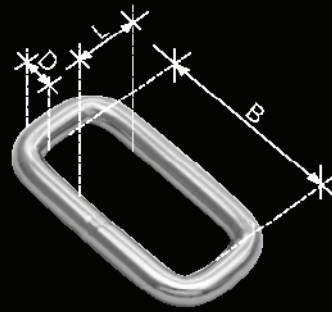
## SF4900, SF32501

### Technical Data

Forging material : AISI304 - DIN 1.4301  
 Production : SF4900 - Ring - Welded  
 SF32501 - Ring - Welded  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Square rings and Dee rings (cross bar) are designed for assembly into many fittings. Rings are all made by TIG Argon welding.



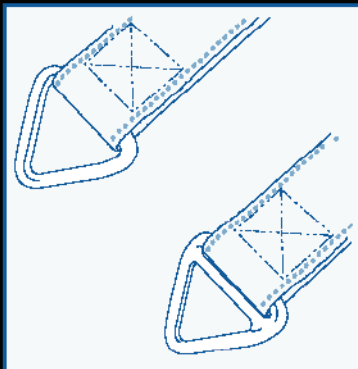
**SF4900**  
Square ring



**SF32501**  
Dee ring (cross bar)

Item no.	SF4900	SIZE	B	Ø D	L		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4490-0520	5*20	20	5	12.0	1,500	1,000
	4490-0525	5*25	26	5	15.0	1,500	1,000
	4490-0530	5*30	32	5	18.0	1,200	1,000
	4940-0540	5*40	39	5	21.0	1,000	1,000
	4490-0650	6*50	52	6	25.4	600	1,500
	4490-0747	7*47	47	7	30.0	500	1,800
	4490-0865	8*65	65	8	38.0	200	3,300

Item no.	SF32501	SIZE	B	Ø D	Ø D1	L		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4325-0154	5*45	45	5	4	39	500	1,000
	4325-0155	5*50	52	5	4	43	500	1,000
	4325-0164	6*45	48	6	5	45	450	1,800
	4325-0165	6*50	50	6	5	43	450	1,800
	4325-0184	8*45	45	8	6	36	250	2,800
	4325-0185	8*50	50	8	6	43	250	2,800



## SF3252, SF3251

### Technical Data

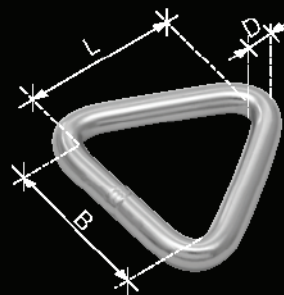
Forging material : AISI304 - DIN 1.4301/  
 AISI316 - DIN 1.4401  
 Production : SF3252 - Ring - Welded  
 SF3251 - Ring - Welded  
 Surface treatment : "E.P." (Electro polished)

### Field of application

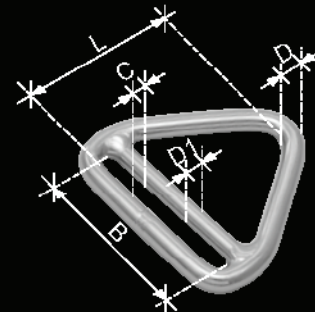
Triangle rings and Triangle rings (cross bar) are designed for assembly into many fittings. Rings are all made by TIG Argon welding.

**Note:**<sup>(1)</sup> See Note: E1 on page E1

Refer to page IV - class 12 load characteristics



**SF3252**  
Triangle ring

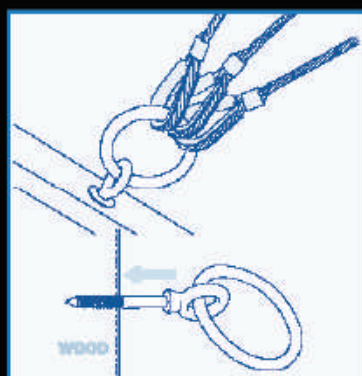


**SF3251**  
Triangle ring (cross bar)

Item no.	SF3252	SIZE	B	Ø D	L		B.L. <sup>(1)</sup>	
Material	SS304	SS316	(mm)	(mm)	(mm)		(kgs)	
	4325-2335	6325-2335	3*35	35	3	35	3,200	600
	4325-2420	6325-2420	4*20	20	4	18	3,000	900
	4325-2530	6325-2530	5*30	30	5	30	1,200	1,300
	4325-2540	6325-2540	5*40	40	5	36	1,200	1,300
	4325-2545	6325-2545	5*45	45	5	39	1,000	1,300
	4325-2640	6325-2640	6*40	40	6	36	700	2,000
	4325-2645	6325-2645	6*45	45	6	40	700	2,000
	4325-2650	6325-2650	6*50	51	6	45	600	2,000
	4325-2770	6325-2770	7*70	70	7	70	300	2,200
	4325-2845	6325-2845	8*45	45	8	41	450	2,800
	4325-2850	6325-2850	8*50	50	8	45	400	2,800

Item no.	SF3251	SIZE	B	C	Ø D	Ø D1	L		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4325-1545	6325-1545	5*45	46	5	5	41	600	1,300
	4325-1550	6325-1550	5*50	52	5	5	45	500	1,300
	4325-1643	6325-1643	6*43	46	4	6	41	500	1,800
	4325-1645	6325-1645	6*45	46	4	6	53	500	1,800
	4325-1650	6325-1650	6*50	52	5	6	45	500	1,800
	4325-1845	6325-1845	8*45	46	5	8	41	300	2,800
	4325-1850	6325-1850	8*50	52	5	8	45	250	2,800
	4325-1860	6325-1860	8*60	61	5	8	54	250	2,800





**M** SF319  
Ring bolt  
(with washer and nut)

**M** S329  
Ring wooden screw



## SF319


### Technical Data

Forging material : A19304 - DIN 14301  
Production : SF319 - Ring - Welded  
Bolt - Forged

Surface treatment : "E.P." (Electro polished)

### Field of application

Ring bolts (with washer and nut) are designed for assembly into many applications. Rings are all made by TIG Argon welding.

Item No.	SF319	SIZE	Ø C	Ø D	L	M		B.L. <sup>(1)</sup>
Article	SS304	(mm)	(mm)	(mm)	(mm)	(thread)		(kgs)
	4319-0003	3	20	3	60	M5	1,500	400
	4319-0005	5	30	5	60	M5	1,000	550
	4319-0006	6	35	6	75	M6	400	1,000
	4319-0060	6*60	35	6	75	M6	500	1,000
	4319-0007	7	40	7	75	M6	400	1,000
	4319-0008	8	45	8	75	M8	200	1,800
	4319-0080	8*80	45	8	80	M8	200	1,800
	4319-0009	9	50	9	110	M10	100	2,400
	4319-9120	9*120	50	9	120	M10	100	2,400
	4319-9140	9*140	50	9	140	M10	100	2,400
	4319-0110	10*100	50	10	100	M10	100	2,400
	4319-0012	12	60	12	110	M12	100	4,000
	4319-0121	12*120	60	12	120	M12	60	4,000
	4319-0122	12*150	60	12	150	M12	60	4,000
	4319-0123	12*180	60	12	180	M12	50	4,000
	4319-0124	12*200	60	12	200	M12	45	4,000



## S329

### Technical Data

Casting material : A19316 - DIN 14408  
Production : S329 - Ring - Welded  
Bolt - Cast


Surface treatment : "E.P." (Electro polished)

### Field of application

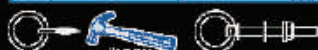
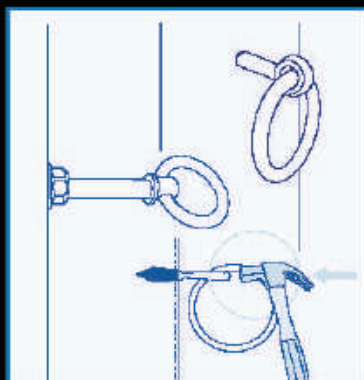
Ring wooden screws are designed for assembly into wood panel for many applications. Rings are all made by TIG Argon welding.

**Note:**<sup>(1)</sup> See Note E1 on page E1

Refer to page IV - class 13 load characteristics

Item No.	SF319	SIZE	Ø C	Ø D	Ø D1	L		B.L. <sup>(1)</sup>
Article	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	6329-0640	6*40	50	6	6	40	300	900
	6329-0660	6*60	50	6	6	60	250	900
	6329-0680	6*80	50	6	6	80	250	900
	6329-0610	6*100	50	6	6	100	250	900
	6329-0860	8*60	50	8	8	60	150	1,600
	6329-0880	8*80	50	8	8	80	140	1,600
	6329-0810	8*100	50	8	8	100	125	1,600
	6329-0812	8*120	50	8	8	120	125	1,600
	6329-0160	10*60	75	10	10	60	75	2,500
	6329-0180	10*80	75	10	10	80	65	2,500
	6329-0110	10*100	75	10	10	100	60	2,500
	6329-0112	10*120	75	10	10	120	60	2,500
	6329-0280	12*80	75	12	12	80	50	3,500
	6329-0210	12*100	75	12	12	100	50	3,500
	6329-0212	12*120	75	12	12	120	50	3,500
	6329-0214	12*140	75	12	12	140	40	3,500
	6329-0216	12*160	75	12	12	160	40	3,500





## SF318, SF126

### Technical Data

Forging material : AISI304 - DIN 1.4301  
 SF318 - Ring - Welded Nail - Forged  
 SF126 - Ring - Welded Bolt - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Ring nails are designed for hammering into wood panel for many applications. Rings are all made by TIG Argon welding.  
 Ring bolts (with two washers and nut) are designed for screwing into different boards for different applications. Rings are all made by TIG Argon welding.



## S319LT, S3192, SF3192

### Technical Data

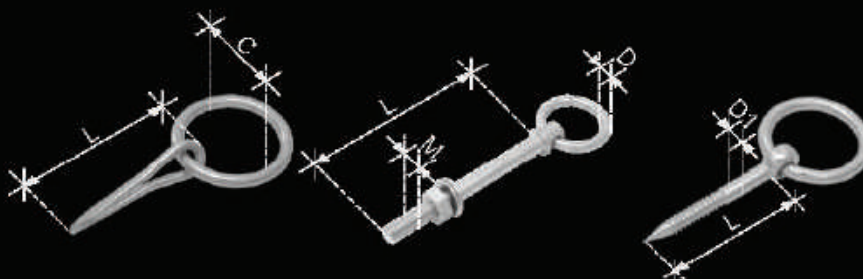
Casting material : AISI304 - DIN 1.4301 / AISI316 - DIN 1.4408  
 Forging material : AISI304 - DIN 1.4301 / AISI316 - DIN 1.4401  
 Production : S319LT - Ring - Welded Bolt - See chart  
 S3192 - Ring - Welded Bolt - See chart  
 SF3192 - Ring - Welded Bolt - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Lag ring bolts are designed for screwing into wooden panels for different applications. Rings are all made by TIG Argon welding.

**Note<sup>(1)</sup>** See Note (E1) on page E1

Refer to page IV - class 1.3 lead characteristics



### SF318 Ring nail

Designation	SF318	SIZE (mm)	Ø C (mm)	Ø D (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS304						
	4318-0003	3	25	3	45	2,000	400
	4318-0004	4	30	4	50	1,200	700
	4318-0005	5	35	5	60	700	1,150
	4318-0006	6	40	6	65	400	1,950
	4318-0008	8	45	8	65	250	2,700

### SF126 Ring bolt (with two washers and nut)

Designation	SF126	SIZE (mm)	Ø C (mm)	Ø D (mm)	L (mm)	M (thread)		B.L. <sup>(1)</sup> (kgs)
Material	SS304							
	4126-1085	10*85	32	6	85	M10	300	2,500
	4126-1010	10*100	32	6	100	M10	250	2,500

### S319LT/ S3192/SF3192 Lag ring bolt

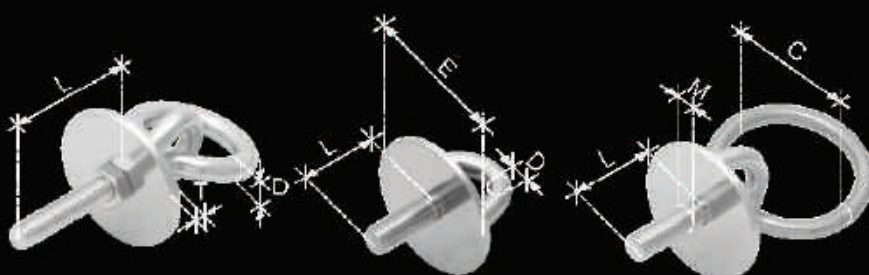
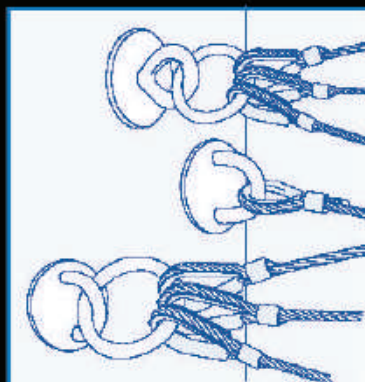
Designation	S319LT	SIZE (mm)	Ø C (mm)	Ø D (mm)	Ø D1 (mm)	L (mm)	Bolt		B.L. <sup>(1)</sup> (kgs)
Material	SS316								
	6319-9003	3	25	3	4	45	Forged	1,400	550
	6319-9005	5	30	5	6	50	Cast	700	900
	6319-9007	7	50	7	8	60	Cast	250	1,500

Designation	S3192	SIZE (mm)	Ø C (mm)	Ø D (mm)	Ø D1 (mm)	L (mm)	Bolt		B.L. <sup>(1)</sup> (kgs)
Material	SS316								
	6319-2655	6*55	30	6	6	55	Cast	600	900
	6319-2661	6*60	30	6	6	60	Forged	500	900
	6319-2860	8*60	50	8	8	60	Cast	200	1,500
	6319-2880	8*80	50	8	8	80	Cast	180	1,500
	6319-2108	10*80	60	10	10	80	Cast	75	2,500
	6319-2110	10*100	60	10	10	100	Cast	100	2,500
	6319-2121	12*100	75	12	12	100	Cast	50	3,500
	6319-2122	12*120	75	12	12	120	Cast	50	3,500

Designation	SF3192	SIZE (mm)	Ø C (mm)	Ø D (mm)	Ø D1 (mm)	L (mm)		B.L. <sup>(1)</sup> (kgs)
Material	SS316							
	2319-2445	4*45	25	3	4	45	1,500	550
	2319-2655	6*55	30	6	6	55	600	900
	2319-2661	6*60	30	6	6	60	500	900
	2319-2860	8*60	50	8	8	60	200	1,500
	2319-2880	8*80	50	8	8	80	180	1,500
	2319-2810	8*100	50	8	8	100	n/a	1,500
	2319-2108	10*80	60	10	10	80	75	2,500
	2319-2110	10*100	60	10	10	100	100	2,500





**M** SF308  
Lag bolt  
(with wide washer and nut)

**M** SF3215  
Round pad bolt

**M** SF3205  
Round pad bolt  
(with ring)



## Technical Data

Forging material : AISI304 - DIN 1.4301  
Production : SF308 - Ring - Welded  
Surface treatment : "E.P." (Electro polished)

## Field of application

Lag bolts (with wide washer and nut) are designed for screw into all types of panels for different applications. Rings are all made by TIG Argon welding.

**Note:**<sup>(1)</sup> See Note: E1 on page E1

Refer to page IV - class B load characteristics



## Technical Data

Forging material : AISI304 - DIN 1.4301  
Production : SF3215 - Pad - Welded  
Surface treatment : "E.P." (Electro polished)

## Field of application

Round pad bolts are designed for screw into all types of panels for different applications. Rings are all made by TIG Argon welding.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class B load characteristics



## Technical Data

Forging material : AISI304 - DIN 1.4301  
Production : SF3205 - Pad - Welded  
Surface treatment : "E.P." (Electro polished)

## Field of application

Round pad bolts (with ring) are designed for screw into all types of panels for different applications. Rings are all made by TIG Argon welding.

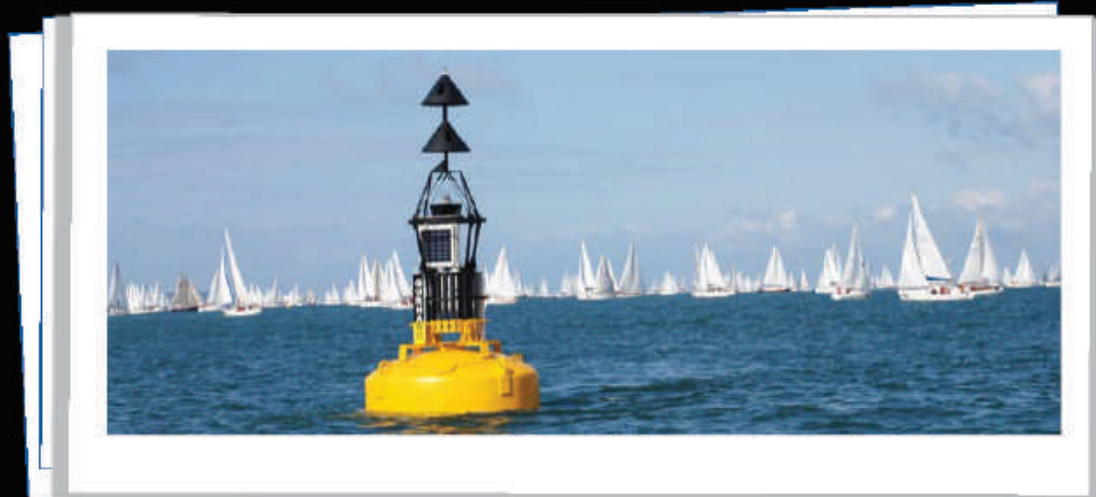
**Note:**<sup>(1)</sup> See Note: E1 on page E1

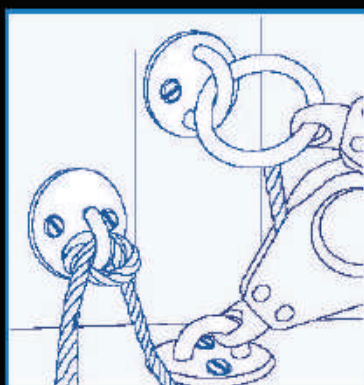
Refer to page IV - class B load characteristics

Design	SF308	SIZE	Ø C	Ø D	Ø E	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4308-0640	6*40	25	6	35	40	3	400	1,350

Design	SF3215	SIZE	Ø D	Ø E	L	M		B.L. <sup>(2)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(thread)		(kgs)
	4321-5005	5	5	33	20	M6	700	400
	4321-5006	6	6	40	23	M8	450	500
	4321-5008	8	8	50	25	M10	250	1,000

Design	SF3205	SIZE	Ø C	Ø D	Ø E	L	M		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)		(kgs)
	4320-5005	5	30	5	33	20	M6	500	400
	4320-5006	6	40	6	40	23	M8	300	500
	4320-5008	8	50	8	50	25	M10	125	1,000





## SF3214

### Technical Data

Forging material : AISI304 - DIN 1.4301  
 Production : SF3214 - Pad - Welded  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Round pad bolts are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 14 load characteristics

## SF3214H

### Technical Data

Forging material : AISI304 - DIN 1.4301  
 Production : SF3214H - Pad - Welded  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Round pads - hook type are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 14 load characteristics

## SF3204

### Technical Data

Forging material : AISI304 - DIN 1.4301  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Round pads (with ring) are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.

**Note:**<sup>(2)</sup> See Note :E1 on page E1

Refer to page IV - class 14 load characteristics

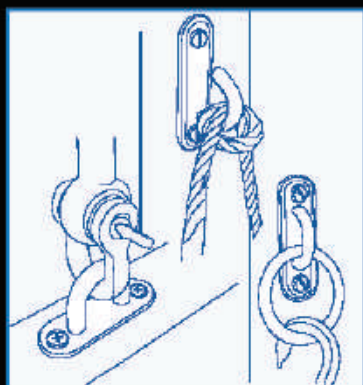
Item no.	SF3214	SIZE	Ø D	Ø E	Ø S	M		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(thread)		(kg/s)
	4321-4005	5	5	33	4,5	M6	1,200	700
	4321-4006	6	6	40	4,5	M8	600	1,000
	4321-4008	8	8	50	5,5	M10	300	1,600

Item no.	SF3214H	SIZE	B	Ø D	Ø E	Ø S		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kg/s)
	4321-4005	5	8	5	33	4,5	1,200	200
	4321-4006	6	12	6	40	4,5	700	220
	4321-4008	8	14	8	50	5,5	300	250

Item no.	SF3204	SIZE	Ø C	Ø D	Ø E	Ø S		B.L. <sup>(2)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kg/s)
	4320-4005	5	30	5	33	4,5	600	700
	4320-4006	6	40	6	40	4,5	300	1,000
	4320-4008	8	50	8	50	5,5	150	1,600



# OPI Rings & Eye plates



**SF3212**  
Oblong pad

**SF3212H**  
Oblong pad - hook type

**SF3202**  
Oblong pad (with ring)



## SF3212

### Technical Data


Forging material : A19304 - DIN 1.4301  
Production : SF3212 - Pad - Welded  
Surface treatment : "E.R." (Electro polished)

### Field of application

Oblong pads are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 14 load characteristics

Item no.	SF3212	SIZE	E	L	L1	Ø S		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4321-2005	5	16	54	38	5,0	1,200	700
	4321-2006	6	19	65	46	5,6	500	1,000
	4321-2008	8	25	81	56	6,5	200	1,600
	4321-2009	10	32	100	73	6,5	200	1,700



## SF3212H

### Technical Data


Forging material : A19304 - DIN 1.4301  
Production : SF3212H - Pad - Welded  
Surface treatment : "E.R." (Electro polished)

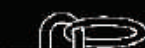
### Field of application

Oblong pads - hook type are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 14 load characteristics

Item no.	SF3212H	SIZE	B	D	L	L1	Ø S		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4321-2105	5	8	5	54	38	5,0	1,000	200
	4321-2106	6	12	6	65	46	5,6	800	220
	4321-2108	8	14	8	81	56	6,5	300	250
	4321-2109	10	18	9	100	73	6,5	200	280



## SF3202

### Technical Data


Forging material : A19304 - DIN 1.4301  
Production : SF3202 - Pad - Welded  
Surface treatment : "E.R." (Electro polished)

### Field of application

Oblong pads (with ring) are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.

**Note:**<sup>(2)</sup> See Note: E1 on page E1

Refer to page IV - class 14 load characteristics

Item no.	SF3202	SIZE	Ø C	Ø D	E	L	Ø S		B.L. <sup>(2)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4320-2005	5	30	5	16	54	5,0	500	700
	4320-2006	6	40	6	19	65	5,6	350	1,000
	4320-2008	8	50	8	25	81	6,5	150	1,600
	4320-2009	9	60	9	32	100	6,5	100	1,900



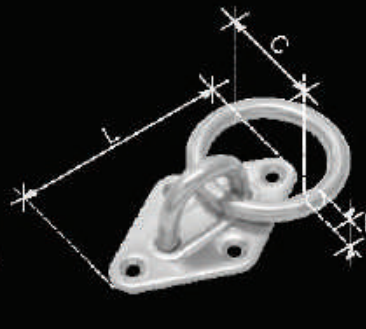
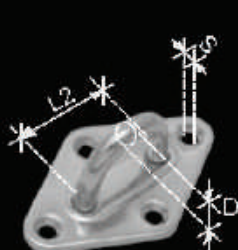
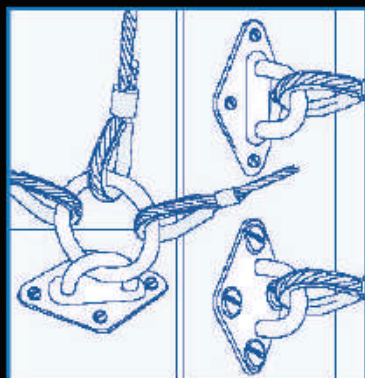
Oblong pad



Diamond Cast Pad







**SF3211**  
Diamond pad

**S3213**  
Diamond cast pad

**SF3201**  
Diamond pad (with ring)



## SF3211

### Technical Data

Forging material : AISI 304 - DIN 1.4301  
Production : SF3211 - Pad - Welded  
Surface treatment : "E.P." (Electro polished)

### Field of application

Diamond pads are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.

**Note<sup>(1)</sup>** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 14 load characteristics

Part no.	<b>SF3211</b>	SIZE	Ø D	L	L2	Ø S		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4321-1005	5	5	59	15	4.1	500	700
	4321-1006	6	6	64	19	4.1	400	1,000
	4321-1008	8	8	80	23	5.1	250	1,600



## S3213

### Technical Data

Castng material : AISI 304 - DIN 1.4308  
Production : S3213 - Pad - Cast  
Surface treatment : "E.P." (Electro polished)

### Field of application

Diamond cast pads are designed for screw into all types of panels for different applications. Casting pad are thicker and stronger than standard diamond pads.

**Note<sup>(1)</sup>** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 14 load characteristics

Part no.	<b>S3213</b>	SIZE	H	L	L2	Ø S		B.L. <sup>(1)</sup>
Material	SS304	(inch)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4321-3712	1.1/2**2.1/2"	21.0	66	20	8.0	500	2,200
	4321-3231	2**3.1/8"	27.5	80	16	8.0	180	3,500
	4321-3214	2.1/4**3.1/2"	29.0	89	22	8.5	125	4,000
	4321-3238	2.3/8**4"	35.0	100	25	8.5	125	6,000



## SF3201

### Technical Data

Forging material : AISI 304 - DIN 1.4301  
Production : SF3201 - Pad - Welded  
Surface treatment : "E.P." (Electro polished)

### Field of application

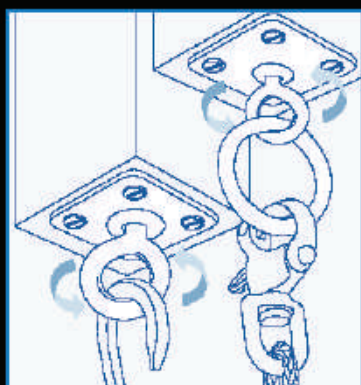
Diamond pads (with ring) are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.

**Note<sup>(2)</sup>** See (Note: E1) on page E1

Refer to page IV - class 14 load characteristics

Part no.	<b>SF3201</b>	SIZE	Ø C	Ø D	L	L2	Ø S		B.L. <sup>(2)</sup>
Material	SS304	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4320-1005	5	30	5	59	15	4.1	500	700
	4320-1006	6	35	6	64	19	4.1	300	1,000
	4320-1008	8	45	8	80	23	5.1	150	1,600





## SF3216, SF3206

### Technical Data

Forging material : AISI304 - DIN 1.4301

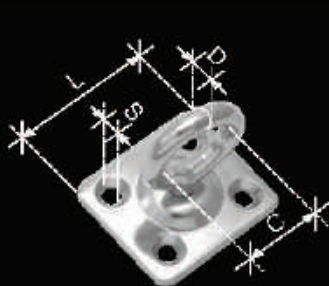
Production : SF3216 - Ring - Welded

SF3206 - Ring - Welded

Surface treatment : "E.P." (Electro polished)

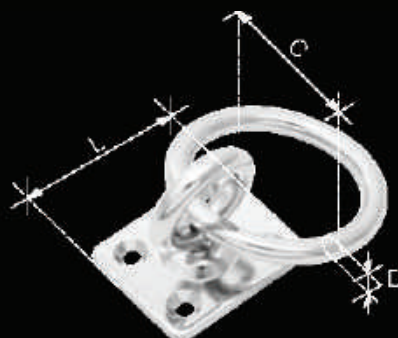
### Field of application

Square pads (swivel eye) and Square pads (swivel eye with ring) are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.



**SF3216**  
Square pad (swivel eye)

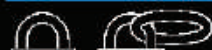
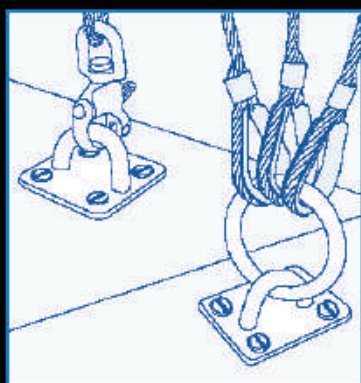
Formo.	<b>SF3216</b>	SIZE	Ø C	Ø D	L	Ø S		S.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4321-6005	5	15	5	35	4.2	500	450
	4321-6006	6	18	6	40	4.2	350	700
	4321-6008	8	19	8	50	5.2	300	850



**SF3206**  
Square pad (swivel eye with ring)

Formo.	<b>SF3206</b>	SIZE	Ø C	Ø D	L	Ø S		S.L. <sup>(2)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4320-6005	5	30	5	35	4.2	350	450
	4320-6006	6	40	6	40	4.2	250	700
	4320-6008	8	50	8	50	5.2	130	850

Notes<sup>(2)</sup> See Note (E1) on page E1



## SF321, SF320

### Technical Data

Forging material : AISI304 - DIN 1.4301

Production : SF321 - Pad - Welded

SF320 - Pad - Welded

Surface treatment : "E.P." (Electro polished)

### Field of application

Square pads and Square pads (with ring) are designed for screw into all types of panels for different applications. Pads are all made by TIG Argon welding.

Note<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 14 load characteristics



**SF321**  
Square pad

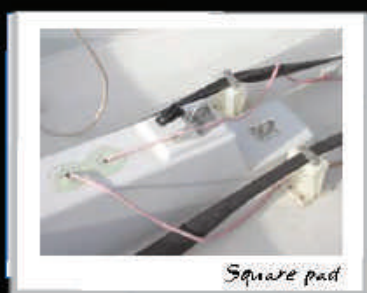
Formo.	<b>SF321</b>	SIZE	B	Ø D	L	Ø S		S.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4321-0005	5	30	5	34	4.1	850	700
	4321-0006	6	34	6	40	4.1	500	1,000
	4321-0008	8	39	8	50	5.3	250	1,600

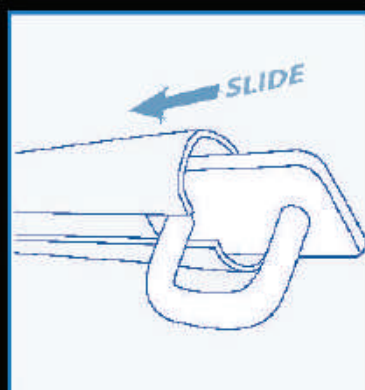


**SF320**  
Square pad (with ring)

Formo.	<b>SF320</b>	SIZE	B	Ø C	Ø D	L	Ø S		S.L. <sup>(2)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4320-0005	5	30	30	5	34	4.1	600	700
	4320-0006	6	34	35	6	40	4.1	300	1,000
	4320-0008	8	39	45	8	50	5.3	125	1,600

Notes<sup>(2)</sup> See Note (E1) on page E1





 **SF3221**  
Square pad (without screw hole)




**SF3221**

**Technical Data**

Forging material : AISI316 - DIN 1.4401  
 Production : SF3221 - Pad - Welded  
 Surface treatment : "E.P." (Electro polished)

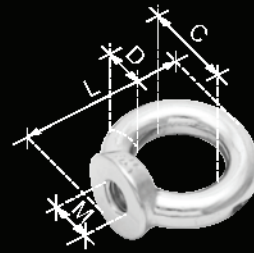
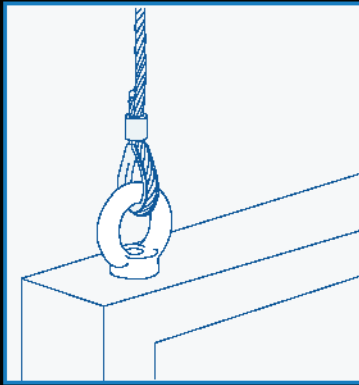
**Field of application**

Square pads (without screw hole) are designed for slide into special panels or welding onto panels.  
 Pads are all made by TIG Argon welding.

Item no.	SF3221	SIZE	H	L	L1	T	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
	6322-1154	15*42	12	42	15	3	1,000
	6322-1174	17*42	12	42	17	3	1,000
	6322-1194	19*42	12	42	19	3	900
	6322-1234	23*42	12	42	23	3	800
	6322-1305	30*50	14	50	30	4	500



# OPI U-bolts & Eye Bolt



 **S582**  
Eye nut

## S582


### Technical Data

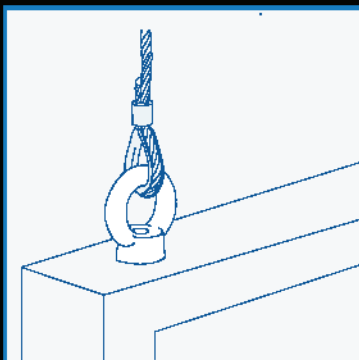
Casting material : AISI316 - DIN 1.4408  
Production : S582 - Nut - Cast  
Surface treatment : "E.P." (Electro polished)


### Field of application

Eye nuts are designed for screw into all types of threaded studs for different applications.



Remno.	S582		SIZE	Ø C	Ø D	L	M		B.L. <sup>(1)</sup>
Material	SS316	(mm/inch)	(mm)	(mm)	(mm)	(thread)		(kgs)	
	6582-0006	6	15	6	27	M6	1,500	1,300	
	6582-0008	8	20	8	36	M8	600	2,200	
	6582-0010	10	25	10	45	M10	400	2,600	
	6582-0012	12	30	12	53	M12	200	4,900	
	6582-0016	16	35	14	63	M16	100	7,000	
	6582-0020	20	40	16	72	M20	75	10,000	
	6582-0024	24	50	20	90	M24	50	18,000	
	6582-0030	30	60	24	108	M30	20	22,000	
	6582-0036	36	70	28	126	M36	10	34,000	
	6582-0104	1/4"	15	6	27	1/4"	1,500	1,300	
	6582-0516	5/16"	20	8	36	5/16"	400	2,200	
	6582-0308	3/8"	25	10	45	3/8"	600	2,600	
	6582-0102	1/2" UNC	30	12	53	1/2"UNC	200	4,900	
	6582-0508	5/8"	35	14	63	5/8"	100	7,000	
	6582-0304	3/4"	40	16	72	3/4"	75	10,000	
	6582-0001	1"	50	20	90	1"	40	18,000	



 **S3061**  
Lifting eye nut - SUS type

## S3061

### Technical Data

Casting material : AISI304 - DIN 1.4308  
                          : AISI316 - DIN 1.4408  
Production : S3061 - Nut - Cast  
Surface treatment : "E.P." (Electro polished)


### Field of application

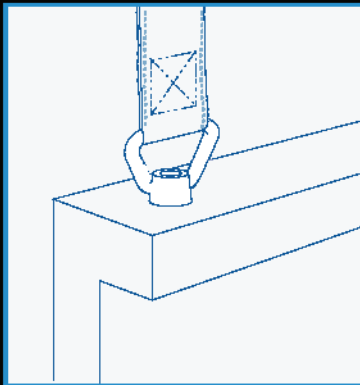
Lifting eye nuts - SUS type are designed for screw into all types of threaded rods, specially designed for lifting of objects.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 15 load characteristics



Remno.	S3061		SIZE	Ø C	Ø D	L	M		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm/inch)	(mm)	(mm)	(mm)	(thread)		(kgs)
4306-1006	6306-1006	6	16	5.0	31.0	M6	1,500	1,100	
4306-1008	6306-1008	8	20	6.2	39.3	M8	1,000	1,300	
4306-1010	6306-1010	10	25	8.0	48.0	M10	500	2,600	
4306-1012	6306-1012	12	30	10.0	61.0	M12	250	3,500	
4306-1016	6306-1016	16	35	12.5	72.0	M16	125	8,000	
4306-1020	6306-1020	20	40	16.0	86.0	M20	50	10,500	
4306-1220	6306-1220	22	46	19.0	107.0	M22	40	11,000	
4306-1030	6306-1030	30	60	25.0	135.0	M30	20	20,000	
4306-1104	6306-1104	1/4"	16	5.0	31.0	1/4"	1,500	1,200	
4306-1516	6306-1516	5/16" UNC	20	6.2	39.3	5/16"UNC	1,000	1,300	
4306-1308	6306-1308	3/8" UNC	25	8.0	48.0	3/8"UNC	500	2,600	
4306-1102	6306-1102	1/2"	30	10.0	61.0	1/2"	200	3,500	
4306-1508	6306-1508	5/8" UNC	35	12.5	72.0	5/8"UNC	125	8,000	
4306-1304	6306-1304	3/4" UNC	40	16.0	86.0	3/4"UNC	75	10,500	
4306-1101	6306-1101	1"	50	20.0	111.0	1"	30	14,450	



## S80704

### Technical Data

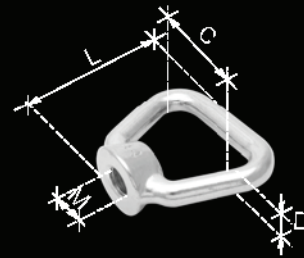
Casting material : AISI316 - DIN 1.4408  
 Production : S80704 - Nut - Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Rectangular eye nuts are designed for screw into all types of threaded rods, specially designed for lifting of objects with knitting of leather or synthetic strap.

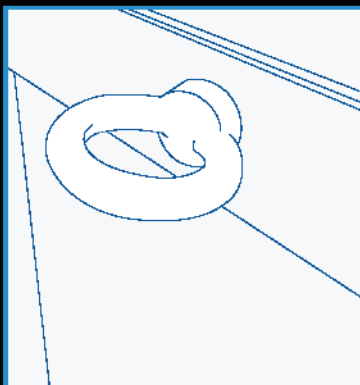
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 16 load characteristics



**S80704**  
Rectangular eye nut

Item no.	<b>S80704</b>	SIZE	C	Ø D	L	M		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)	(thread)		(kgs)
	<b>6807-0408</b>	<b>8</b>	32	6.5	36.5	M8	600	2,200
	<b>6807-0410</b>	<b>10</b>	42	8.0	45.0	M10	400	3,600
	<b>6807-0412</b>	<b>12</b>	48	10.0	52.0	M12	200	4,300



## S580

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : S580 - Thread- Forged Bolt - Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Eye bolts - AISI type are designed for screw into all types of panels for different applications. Threaded rod are TIG Argon welded to the casting eye.

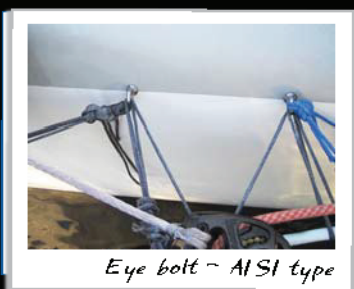
**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 15 load characteristics

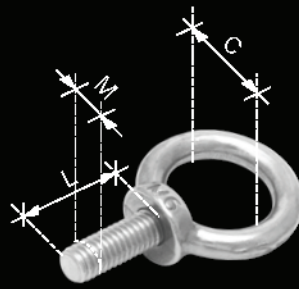
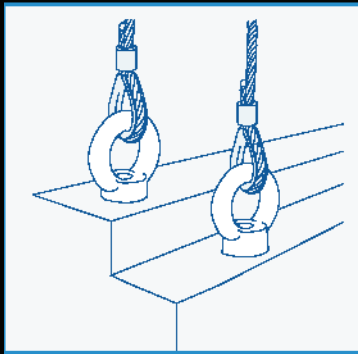



**S580**  
Eye bolt - AISI type

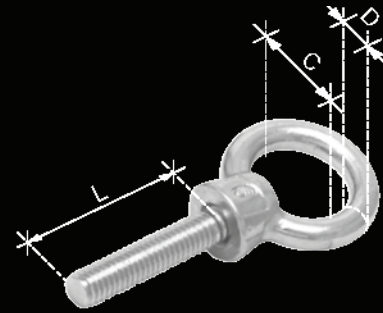
Item no.	<b>S580</b>	SIZE	Ø C	Ø D	L	M		B.L. <sup>(1)</sup>
Material	SS316	(mm/inch)	(mm)	(mm)	(mm)	(thread)		(kgs)
	<b>6580-0006</b>	<b>6</b>	15	6	37	M6	1,200	1,300
	<b>6580-0008</b>	<b>8</b>	20	8	49	M8	500	2,000
	<b>6580-0010</b>	<b>10</b>	25	10	62	M10	300	2,600
	<b>6580-0012</b>	<b>12</b>	30	12	74	M12	150	4,900
	<b>6580-0016</b>	<b>16</b>	35	14	90	M16	100	7,000
	<b>6580-0020</b>	<b>20</b>	40	16	102	M20	70	10,000
	<b>6580-0024</b>	<b>24</b>	50	20	126	M24	30	15,000
	<b>6580-0030</b>	<b>30</b>	60	24	153	M30	15	20,000
	<b>6580-0104</b>	<b>1/4"</b>	15	6	37	1/4"	1,200	1,300
	<b>6580-0516</b>	<b>5/16"</b>	20	8	49	5/16"	500	2,000
	<b>6580-0308</b>	<b>3/8"</b>	25	10	62	3/8"	300	2,600
	<b>6580-0102</b>	<b>1/2"</b>	30	12	74	1/2"	150	4,900
	<b>6580-0508</b>	<b>5/8"</b>	35	14	90	5/8"	100	7,000
	<b>6580-0001</b>	<b>1"</b>	40	20	126	1"	30	15,000




# OPI U-bolts & Eye Bolt



 **S306 Standard**  
Eye bolt - SUS type



 **S306 Special**  
Eye bolt - SUS type

## S306 (Standard)

### Technical Data

Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : S306 (Standard) - Thread - Forged  
Bolt - Cast  
Surface treatment : "E.P." (Electro polished)

### Field of application

Eye bolts - SUS type are longer and slender base than that of a standard bolt. Threaded rod are TIG Argon welded to the casting eye.

Item no.	S306 (Standard)		SIZE	Ø C	Ø D	L	M		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm/inch)	(mm)	(mm)	(mm)	(thread)		(kgs)
4306-0006		6306-0006	6	16.0	5.0	13.0	M6	1,500	1,100
4306-0008		6306-0008	8	20.0	6.2	14.0	M8	800	1,800
4306-0010		6306-0010	10	24.5	8.0	18.0	M10	500	2,600
4306-0012		6306-0012	12	30.0	10.0	21.5	M12	200	3,500
4306-0016		6306-0016	16	35.0	12.5	26.5	M16	150	8,000
4306-0020		6306-0020	20	39.5	15.5	29.5	M20	70	10,500
4306-0024		6306-0024	24	50.0	20.0	36.0	M24	30	14,550
4306-0104		6306-0104	1/4"	16.0	5.0	13.0	1/4"	1,500	1,100
4306-0516		6306-0516	5/16"	20.0	6.2	14.0	5/16"	750	1,800
4306-0308		6306-0308	3/8"	24.5	8.0	18.0	3/8"	400	2,600
4306-0102		6306-0102	1/2"	30.0	10.0	21.5	1/2"	200	3,400
4306-0508		6306-0508	5/8"	35.0	12.5	26.5	5/8"	125	8,000
4306-0304		6306-0304	3/4"	39.5	15.5	29.5	3/4"	70	10,500
4306-0100		6306-0100	1"	50.0	20.0	35.0	1"	30	13,000

## S306 (Special)

### Technical Data


Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : S306 (Special) - Thread - Forged  
Bolt - Cast  
Surface treatment : "E.P." (Electro polished)

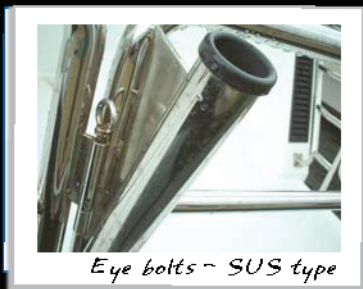
### Field of application

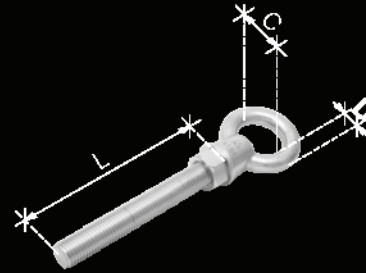
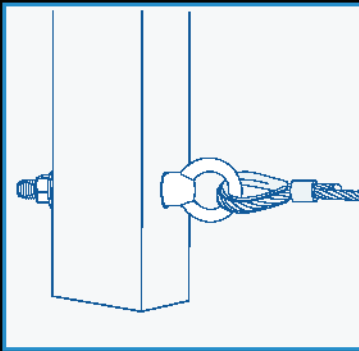
Eye bolts - SUS type are longer and slender base than that of a standard bolt. Threaded rod are TIG Argon welded to the casting eye.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 8 load characteristics

Item no.	S306 (Special)		SIZE	Ø C	Ø D	L	M		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm/inch)	(mm)	(mm)	(mm)	(thread)		(kgs)
4306-0638		6306-0638	06*38	16	5.0	38	M6	n/a	1,100
4306-0650		6306-0650	06*50	16	5.0	50	M6	1,000	1,100
4306-0850		6306-0850	08*50	20	6.2	50	M8	500	1,800
4306-1050		6306-1050	10*50	25	8.0	50	M10	250	2,600
4306-1250		6306-1250	12*50	30	10.0	50	M12	150	3,500
4306-1650		6306-1650	16*50	35	12.5	50	M16	100	8,000
4306-1615		6306-1615	16*150	35	12.5	150	M16	60	8,000
4306-2050		6306-2050	20*50	40	16.0	50	M20	50	10,500
4306-2080		6306-2080	20*80	40	16.0	80	M20	50	10,500
4306-2015		6306-2015	20*150	40	16.0	150	M20	30	10,500
4306-2215		6306-2215	22*150	46	19.0	150	M22	n/a	12,500
4306-2450		6306-2450	24*50	50	20.0	50	M24	30	14,550
4306-2415		6306-2415	24*150	50	20.0	150	M24	n/a	14,550
4306-4122		6306-4122	1/4"*2"	16	5.0	2"	1/4"	1,000	1,100
4306-5162		6306-5162	5/16"*2"	20	6.2	2"	5/16"	500	1,800
4306-8032		6306-8082	3/8"*2"	25	8.0	2"	3/8"	200	2,600
4306-3806		6306-3806	3/8"*6"	25	8.0	6"	3/8"	170	2,600
4306-2012		6306-2012	1/2"*2"	30	10.0	2"	1/2"	150	3,400
4306-2106		6306-2106	1/2"*6"	30	10.0	6"	1/2"	100	3,400
4306-5802		6306-5802	5/8"*2"	35	12.5	2"	5/8"	100	8,000
4306-8506		6306-8506	5/8"*6"	35	12.5	6"	5/8"	60	8,000
4306-4306		6306-4306	3/4"*6"	40	16.0	6"	3/4"	45	10,500
4306-3042		6306-3042	3/4"*2"	40	16.0	2"	3/4"	50	10,500
4306-8706		6306-8706	7/8"*6"	46	19.0	6"	7/8"	20	12,500
4306-0106		6306-0106	1"*6"	50	20.0	6"	1"	15	13,000





**S307**  
Lifting eye bolt (with washer and nut)

## S307

### Technical Data

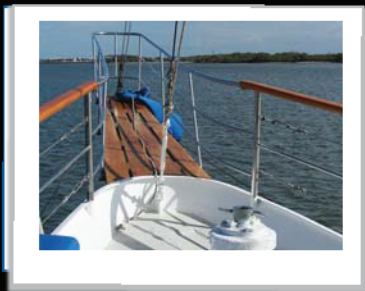
Casting material : AISI304 - DIN 1.4308/  
AISI316 - DIN 1.4408  
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : S307 - Thread - Forged  
Bolt - Cast  
Surface treatment : "E.P." (Electro polished)

### Field of application

Lifting eye bolt (with washer and nut) for better gripping during assembly. Threaded rod are TIG Argon welded to the casting eye.

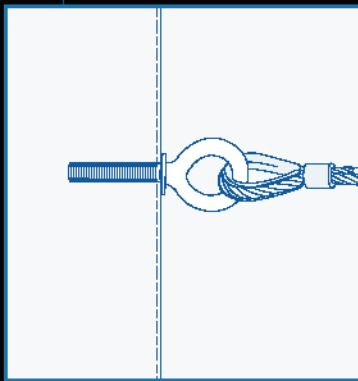
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 8 load characteristics



Item no.	S307		SIZE	Ø C	Ø D	L		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm/inch)	(mm)	(mm)	(mm)		(kgs)
4307-0640		6307-0640	06040	16	5.0	40	1,000	1,100
4307-0660		6307-0660	06060	16	5.0	60	800	1,100
4307-0680		6307-0680	06080	16	5.0	80	600	1,100
4307-0610		6307-0610	06100	16	5.0	100	600	1,100
4307-0828		6307-0828	08028	20	6.2	28	500	1,300
4307-0838		6307-0838	08038	20	6.2	38	400	1,300
4307-0860		6307-0860	08060	20	6.2	60	350	1,300
4307-0864		6307-0864	08064	20	6.2	64	300	1,300
4307-0880		6307-0880	08080	20	6.2	80	350	1,300
4307-0810		6307-0810	08100	20	6.2	100	250	1,300
4307-0812		6307-0812	08120	20	6.2	120	300	1,300
4307-1005		6307-1005	10050	25	8.0	50	250	2,600
4307-1080		6307-1080	10080	25	8.0	80	200	2,600
4307-1010		6307-1010	10100	25	8.0	100	150	2,600
4307-1012		6307-1012	10120	25	8.0	120	150	2,600
4307-1014		6307-1014	10140	25	8.0	140	175	2,600
4307-1016		6307-1016	10160	25	8.0	160	150	2,600
4307-1020		6307-1020	10200	25	8.0	200	125	2,600
4307-1210		6307-1210	12100	30	10.0	100	100	3,500
4307-1212		6307-1212	12120	30	10.0	120	100	3,500
4307-1214		6307-1214	12140	30	10.0	140	75	3,500
4307-2100		6307-2100	12150	30	10.0	150	70	3,500
4307-1216		6307-1216	12160	30	10.0	160	80	3,500
4307-1217		6307-1217	12165	30	10.0	165	80	3,500
4307-1218		6307-1218	12180	30	10.0	180	70	3,500
4307-1220		6307-1220	12200	30	10.0	200	60	3,500
4307-1675		6307-1675	16075	35	12.5	75	75	8,000
4307-1610		6307-1670	16100	35	12.5	100	80	8,000
4307-1615		6307-1615	16150	35	12.5	150	70	8,000
4307-4140		6307-4140	1/4**40	16	5.0	40	800	1,100
4307-4150		6307-4150	1/4**50	16	5.0	50	700	1,100
4307-4160		6307-4160	1/4**60	16	5.0	60	600	1,100
4307-4180		6307-4180	1/4**80	16	5.0	80	600	1,100
4307-4011		6307-4011	1/4**100	16	5.0	100	600	1,100
4307-5660		6307-5660	5/16**60	20	6.2	60	500	1,300
4307-5680		6307-5680	5/16**80	20	6.2	80	400	1,300
4307-5610		6307-5610	5/16**100	20	6.2	100	250	1,300
4307-5012		6307-5012	5/16**120	20	6.2	120	300	1,300
4307-8345		6307-8345	3/8**45	25	8.0	45	250	2,600
4307-8380		6307-8380	3/8**80	25	8.0	80	200	2,600
4307-8310		6307-8310	3/8**100	25	8.0	100	175	2,600
4307-8312		6307-8312	3/8**120	25	8.0	120	150	2,600
4307-8313		6307-8313	3/8**125	25	8.0	125	150	2,600
4307-8314		6307-8314	3/8**140	25	8.0	140	125	2,600
4307-2145		6307-2145	1/2**45	30	10.0	45	150	3,500
4307-2150		6307-2166	1/2**50	30	10.0	50	120	3,500
4307-2166		6307-2165	1/2**60	30	10.0	60	120	3,500
4307-2180		6307-2180	1/2**80	30	10.0	80	100	3,500
4307-2110		6307-2110	1/2**100	30	10.0	100	100	3,500
4307-2112		6307-2112	1/2**120	30	10.0	120	100	3,500
4307-2114		6307-2114	1/2**140	30	10.0	140	75	3,500
4307-2115		6307-2115	1/2**150	30	10.0	150	75	3,500
4307-1270		6307-1270	12170	30	10.0	170	75	3,500
4307-1222		6307-1222	12220	30	10.0	220	50	3,500
4307-2015		6307-2015	20150	40	16.0	150	35	10,500
4307-2415		6307-2415	24150	50	20.0	150	25	14,550





**SF3191**  
Eye bolt (with double washer and nut)

## SF3191

### Technical Data

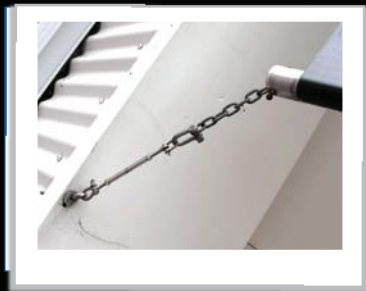
Forging material : AISI304 - DIN 1.4301/  
AISI316 - DIN 1.4401  
Production : SF3191 - Bolt - Welded  
Surface treatment : "E.P." (Electro polished)


### Field of application

Eye bolts (with double washer and nut) are designed for assembly onto a flat panel and serve as a pulling ring.

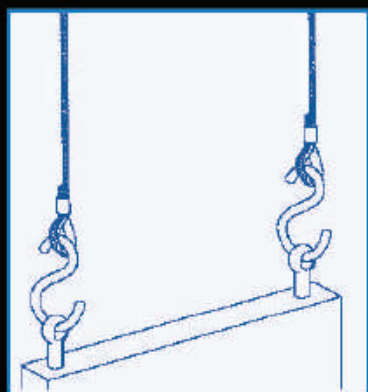
**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 8 load characteristics



Remno.	SF3191		SIZE	Ø C	Ø D	L	M		B.L. <sup>(1)</sup>
Material	SS304	SS316	(mm/inch)	(mm)	(mm)	(mm)	(thread)		(kgs)
4319-1550		6319-1550	5*50	11	4.40	50	M5	1,500	600
4319-1640		6319-1640	6*40	13	5.25	40	M6	1,000	1,000
4319-1655		6319-1655	6*55	13	5.25	55	M6	800	1,000
4319-1660		6319-1660	6*60	13	5.25	60	M6	1,000	1,000
4319-1680		6319-1680	6*80	13	5.25	80	M6	600	1,000
4319-1610		6319-1610	6*100	13	5.25	100	M6	700	1,000
4319-6125		6319-6125	6*125	13	5.25	125	M6	500	1,000
4319-1616		6319-1616	6*160	13	5.25	160	M6	400	1,000
4319-1835		6319-1835	8*35	17	7.00	35	M8	800	1,800
4319-1860		6319-1860	8*60	17	7.00	60	M8	500	1,800
4319-1880		6319-1880	8*80	17	7.00	80	M8	500	1,800
4319-1810		6319-1810	8*100	17	7.00	100	M8	250	1,800
4319-1811		6319-1811	8*110	17	7.00	110	M8	300	1,800
4319-1812		6319-1812	8*120	17	7.00	120	M8	350	1,800
4319-1888		6319-1888	8*125	17	7.00	125	M8	250	1,800
4319-1813		6319-1813	8*130	17	7.00	130	M8	250	1,800
4319-1815		6319-1815	8*150	17	7.00	150	M8	250	1,800
4319-1150		6319-1150	10*50	21	8.80	50	M10	250	2,400
4319-1106		6319-1106	10*60	21	8.80	60	M10	200	2,400
4319-1107		6319-1107	10*80	21	8.80	80	M10	250	2,400
4319-1101		6319-1101	10*100	21	8.80	100	M10	250	2,400
4319-1102		6319-1102	10*120	21	8.80	120	M10	200	2,400
4319-1103		6319-1103	10*130	21	8.80	130	M10	150	2,400
4319-1114		6319-1114	10*140	21	8.80	140	M10	200	2,400
4319-1104		6319-1104	10*150	21	8.80	150	M10	200	2,400
4319-1112		6319-1112	10*200	21	8.80	200	M10	150	2,400
4319-1126		6319-1126	12*80	25	10.70	80	M12	100	3,500
4319-1121		6319-1121	12*100	25	10.70	100	M12	125	3,500
4319-1122		6319-1122	12*120	25	10.70	120	M12	100	3,500
4319-1123		6319-1123	12*140	25	10.70	140	M12	125	3,500
4319-1124		6319-1124	12*150	25	10.70	150	M12	100	3,500
4319-2185		6319-1185	12*185	25	10.70	185	M12	100	3,500
4319-1165		6319-1615	16*150	18	14.45	150	M16	75	7,500
4319-1416		6319-1416	1/4"*60	13	5.40	60	1/4"	1,000	1,000
4319-1511		6319-1511	5/16"*100	17	6.94	100	5/16"	250	1,800
4319-1831		6319-1831	3/8"*3-1/8"	21	8.40	80	3/8"	250	2,400
4319-1832		6319-1832	3/8"*3-3/16"	21	8.40	81	3/8"	250	2,400
4319-1381		6319-1381	3/8"*100	21	8.40	100	3/8"	250	2,400
4319-1214		6319-1214	1/2"*4"	25	11.24	101	1/2"	100	3,500
4319-1212		6319-1212	1/2"*120	25	11.24	120	1/2"	100	3,500





**SF3182**  
Eye bolt (wooden screw)



## SF3182

### Technical Data

Forging material : AISI316 - DIN 1.4401  
Production : SF3182 - Bolt - Forged  
Surface treatment : "E.P." (Electro polished)

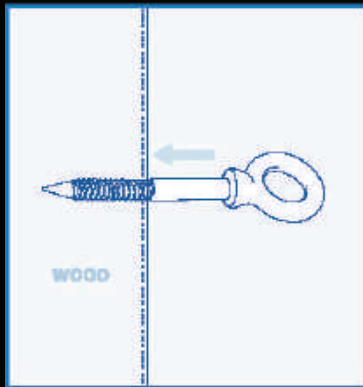
### Field of application

Eye bolts (wooden screw) are designed for screw into wooden panels for lifting purposes.

Design	SF3182	SIZE	Ø C	Ø C1	L	L1	
Material	SS316	(mm /inch)	(mm)	(mm)	(mm)	(MM)	
F	2318-2445	4*45	4,2	7,3	45	30	5,000
F	2318-2555	5*55	5,2	12,0	55	40	n/a
F	2318-2560	5*60	5,2	12,0	60	50	n/a
F	2318-2640	6*40	6,2	14,0	40	28	1,500
F	2318-2645	6*45	6,2	14,0	45	30	n/a
F	2318-2650	6*50	6,2	14,0	50	33	n/a
F	2318-2655	6*55	6,2	14,0	55	36	1,300
F	2318-2660	6*60	6,2	14,0	60	40	1,700
F	2318-2680	6*80	6,2	14,0	80	55	1,000
F	2318-2860	8*60	8,2	18,0	60	40	1,000
F	2318-2875	8*75	8,2	18,0	75	50	800
F	2318-2880	8*80	8,2	18,0	80	55	500
F	2318-2810	8*100	8,2	18,0	100	65	n/a
F	2318-2175	10*75	10,3	20,0	75	50	n/a
F	2318-2180	10*80	10,3	20,0	80	55	500
F	2318-2110	10*100	10,3	20,0	100	65	350
F	2318-2112	10*120	10,3	20,0	120	80	n/a
F	2318-2127	12*100	12,3	24,5	100	65	300
F	2318-2122	12*120	12,3	24,5	120	80	250



# OPI U-bolts & Eye Bolt



**S3291**  
Eye wooden screw




**S3291**

**Technical Data**

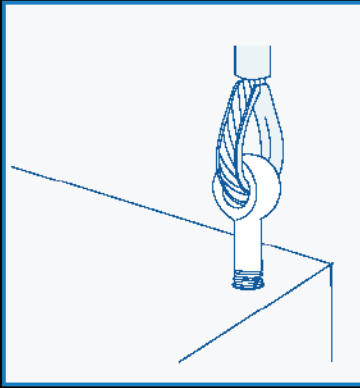
Casting material : AISI316 - DN 1.4408  
Production : S3291 - Screw - Cast  
Surface treatment : "E.P." (Electro polished)

**Field of application**

Eye wooden screws are designed for screw into wooden panels for lifting purposes. The large eye profile allows easy gripping.

Temp.	<b>S3291</b>	SIZE	Ø C	Ø D	L	L1	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
	6329-1550	5*50	11	5	50	30	1,000
	6329-1560	5*60	11	5	60	36	1,000
	6329-1640	6*40	14	6	40	24	1,000
	6329-1660	6*60	14	6	60	36	700
	6329-1680	6*80	14	6	80	48	800
	6329-1610	6*100	14	6	100	60	600
	6329-1860	8*60	18	8	60	36	500
	6329-1880	8*80	18	8	80	48	350
	6329-1810	8*100	18	8	100	60	300
	6329-1812	8*120	18	8	120	72	300
	6329-1160	10*60	22	10	60	36	250
	6329-1180	10*80	22	10	80	48	200
	6329-1110	10*100	22	10	100	60	200
	6329-1112	10*120	22	10	120	72	200
	6329-1280	12*80	27	12	80	48	150
	6329-1210	12*100	27	12	100	60	125
	6329-1212	12*120	27	12	120	72	100
	6329-1214	12*140	27	12	140	84	100
	6329-1216	12*160	27	12	160	96	85





**DIN444, SFDIN444**  
Eye bolt

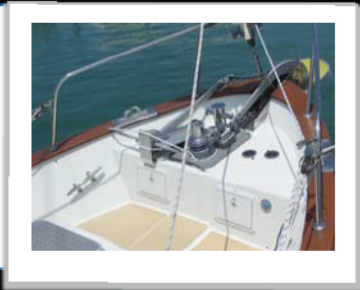
### DIN444, SFDIN444

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : DIN444 - Bolt - Cast  
 SFDIN444 - Bolt - Forged  
 Surface treatment : "E.P." (Electro polished)

#### Field of application

Eye bolts are designed for screw into internal thread holes for lifting purposes.



Item no.	DIN444	SIZE	Ø C	Ø C1	L	L1	M	T	
Material	SS316	(mm/inch)	(mm)	(mm)	(mm)	(mm)	(thread)	(mm)	
	6444-1011	10*110	10.1	20	110	65	M10	12	300
	6444-1012	10*120	10.1	20	120	73	M10	12	350
	6444-3812	3/8"*120	10.1	20	120	73	3/8"	12	350


Item no.	SFDIN444	SIZE	Ø C	Ø C1	L	L1	M	T	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	(mm)	
	2444-0530	5*30	5.2	12	30	20	M5	6	4,000
	2444-0540	5*40	5.2	12	40	22	M5	6	4,000
	2444-0550	5*50	5.2	12	50	30	M5	6	4,000
	2444-0560	5*60	5.2	12	60	36	M5	6	2,500
	2444-0525	6*25	6.2	14	25	15	M6	7	2,500
	2444-0635	6*35	6.2	14	35	18	M6	7	3,000
	2444-0640	6*40	6.2	14	40	22	M6	7	2,000
	2444-0645	6*45	6.2	14	45	25	M6	7	1,800
	2444-0650	6*50	6.2	14	50	30	M6	7	1,700
	2444-0660	6*60	6.2	14	60	36	M6	7	1,500
	2444-0670	6*70	6.2	14	70	42	M6	7	1,000
	2444-0675	6*75	6.2	14	75	46	M6	7	1,000
	2444-0680	6*80	6.2	14	80	50	M6	7	1,000
	2444-0825	8*25	8.2	18	25	15	M8	9	1,200
	2444-0830	8*30	8.2	18	30	15	M8	9	1,200
	2444-0835	8*35	8.2	18	35	18	M8	9	1,200
	2444-8404	8*40	8.2	18	40	22	M8	9	1,200
	2444-0845	8*45	8.2	18	45	25	M8	9	1,200
	2444-0850	8*50	8.2	18	50	28	M8	9	1,000
	2444-0860	8*60	8.2	18	60	34	M8	9	1,000
	2444-0865	8*65	8.2	18	65	38	M8	9	800
	2444-0870	8*70	8.2	18	70	40	M8	9	700
	2444-0875	8*75	8.2	18	75	45	M8	9	800
	2444-0880	8*80	8.2	18	80	48	M8	9	800
	2444-0810	8*100	8.2	18	100	60	M8	9	600
	2444-8120	8*120	8.2	18	120	73	M8	9	300
	2444-1040	10*40	10.2	20	40	20	M10	12	900
	2444-1045	10*45	10.2	20	45	23	M10	12	800
	2444-1050	10*50	10.2	20	50	29	M10	12	750
	2444-1060	10*60	10.2	20	60	32	M10	12	600
	2444-1065	10*65	10.2	20	65	35	M10	12	600
	2444-1070	10*70	10.2	20	70	40	M10	12	600
	2444-1075	10*75	10.2	20	75	43	M10	12	550
	2444-1080	10*80	10.2	20	80	46	M10	12	500
	2444-1090	10*90	10.2	20	90	53	M10	12	450
	2444-1010	10*100	10.2	20	100	60	M10	12	400
	2444-1250	12*50	12.2	25	50	25	M12	14	400
	2444-1255	12*55	12.2	25	55	28	M12	14	400
	2444-1260	12*60	12.2	25	60	32	M12	14	400
	2444-1265	12*65	12.2	25	65	35	M12	14	400
	2444-1270	12*70	12.2	25	70	38	M12	14	n/a
	2444-1275	12*75	12.2	25	75	42	M12	14	300
	2444-1280	12*80	12.2	25	80	45	M12	14	250
	2444-1290	12*90	12.2	25	90	50	M12	14	250
	2444-1210	12*100	12.2	25	100	58	M12	14	250
	2444-1211	12*110	12.2	25	110	65	M12	14	250
	2444-1212	12*120	12.2	25	120	72	M12	14	180
	2444-1213	12*130	12.2	25	130	78	M12	14	200
	2444-1214	12*140	12.2	25	140	85	M12	14	200
	2444-1215	12*150	12.2	25	150	92	M12	14	150
	2444-1217	12*160	12.2	25	160	95	M12	14	150

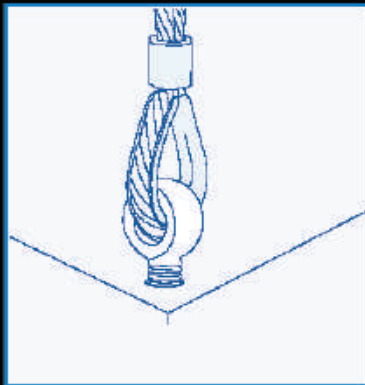
# OPI U-bolts & Eye Bolt



SFDIN444  
Eye bolt  
(Continue from previous page)



Item no.	SFDIN444	SIZE	Ø C	Ø C1	L	L1	M	T	
Material	SS316	(mm/inch)	(mm)	(mm)	(mm)	(mm)	(thread)	(mm)	
2444-1660	16*60	16.2	32	60	30	M16	17	150	
2444-1670	16*70	16.2	32	70	35	M16	17	150	
2444-1680	16*80	16.2	32	80	42	M16	17	150	
2444-1690	16*90	16.2	32	90	49	M16	17	150	
2444-1610	16*100	16.2	32	100	56	M16	17	150	
2444-1611	16*110	16.2	32	110	62	M16	17	130	
2444-1612	16*120	16.2	32	120	70	M16	17	125	
2444-1613	16*130	16.2	32	130	75	M16	17	100	
2444-1614	16*140	16.2	32	140	82	M16	17	100	
2444-1615	16*150	16.2	32	150	90	M16	17	80	
2444-1616	16*160	16.2	32	160	96	M16	17	100	
2444-2070	20*70	18.2	40	70	30	M20	22	120	
2444-2075	20*75	18.2	40	75	35	M20	22	120	
2444-2080	20*80	18.2	40	80	40	M20	22	120	
2444-2090	20*90	18.2	40	90	42	M20	22	100	
2444-2010	20*100	18.2	40	100	53	M20	22	100	
2444-2011	20*110	18.2	40	110	60	M20	22	80	
2444-2012	20*120	18.2	40	120	66	M20	22	80	
2444-2013	20*130	18.2	40	130	76	M20	22	70	
2444-2014	20*140	18.2	40	140	80	M20	22	70	
2444-2015	20*150	18.2	40	150	86	M20	22	60	
2444-2016	20*160	18.2	40	160	93	M20	22	60	
2444-2018	20*180	18.2	40	180	106	M20	22	60	
2444-2020	20*200	18.2	40	200	120	M20	22	50	
2444-2480	24*80	22.2	45	80	38	M24	26	60	
2444-2490	24*90	22.2	45	90	42	M24	26	60	
2444-2410	24*100	22.2	45	100	50	M24	26	60	
2444-2411	24*110	22.2	45	110	54	M24	26	55	
2444-2412	24*120	22.2	45	120	65	M24	26	50	
2444-2413	24*130	22.2	45	130	70	M24	26	50	
2444-2414	24*140	22.2	45	140	80	M24	26	50	
2444-2415	24*150	22.2	45	150	85	M24	26	50	
2444-2416	24*160	22.2	45	160	90	M24	26	50	
2444-4180	24*180	22.2	45	180	105	M24	26	40	
2444-2420	24*200	22.2	45	200	118	M24	26	40	
2444-5640	5/16"*40	8.2	18	40	22	5/16"	9	1,400	
2444-5660	5/16"*60	8.2	18	60	34	5/16"	9	900	
2444-5680	5/16"*80	8.2	18	80	48	5/16"	9	800	
2444-5610	5/16"*100	8.2	18	100	60	5/16"	9	600	
2444-5620	5/16"*120	8.2	18	120	73	5/16"	9	500	
2444-3840	3/8"*40	10.2	20	40	20	3/8"	12	900	
2444-3860	3/8"*60	10.2	20	60	32	3/8"	12	650	
2444-3880	3/8"*80	10.2	20	80	46	3/8"	12	500	
2444-8390	3/8"*90	10.2	20	90	53	3/8"	12	n/a	
2444-3810	3/8"*100	10.2	20	100	60	3/8"	12	400	
2444-2161	1/2"*60	12.2	25	60	32	1/2"	14	375	
2444-2181	1/2"*80	12.2	25	80	45	1/2"	14	300	
2444-2110	1/2"*100	12.2	25	100	58	1/2"	14	250	
2444-2112	1/2"*120	12.2	25	120	72	1/2"	14	200	
2444-2114	1/2"*140	12.2	25	140	85	1/2"	14	200	
6444-5860	5/8"*60	16.2	32	60	30	5/8"	17	250	
2444-5880	5/8"*80	16.2	32	80	42	5/8"	17	175	
2444-5810	5/8"*100	16.2	32	100	56	5/8"	17	135	
2444-5812	5/8"*120	16.2	32	120	70	5/8"	17	125	
2444-5814	5/8"*140	16.2	32	140	82	5/8"	17	125	
2444-3460	3/4"*60	18.2	40	60	26	3/4"	22	125	
2444-3480	3/4"*80	18.2	40	80	40	3/4"	22	100	
2444-3410	3/4"*100	18.2	40	100	53	3/4"	22	100	
2444-3412	3/4"*120	18.2	40	120	66	3/4"	22	75	
2444-3414	3/4"*140	18.2	40	140	80	3/4"	22	70	



**SFDIN444FT**  
Eye bolt (full thread)

## SFDIN444FT

### Technical Data

Casting material : AISI316 - DIN1.4438  
 Forging material : AISI316 - DIN1.4431  
 Production : SFDIN444FT-Bolt - Forged  
 Surface treatment : "E.P." (Electro polished)

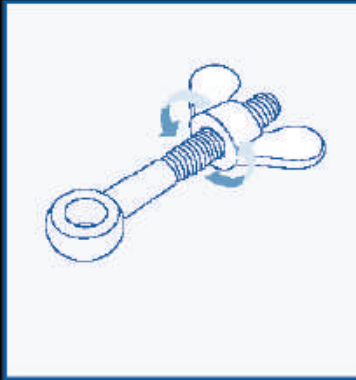
### Field of application

Eye bolts (full thread) are heavy duty forging eye bolts designed with longer thread length for heavy load liftings.

Part No.	Material	SIZE	Ø C	Ø C1	L	L1	M	
	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
F 2444-2530		5*30	5.2	12	30	22	AAS	n/a
F 2444-2540		5*40	5.2	12	40	32	AAS	n/a
F 2444-2550		5*50	5.2	12	50	42	AAS	n/a
F 2444-2560		5*60	5.2	12	60	52	AAS	n/a
F 2444-2612		6*19	6.2	14	19	10	AAG	4,000
F 2444-0625		6*25	6.2	14	25	15	AAG	3,000
F 2444-2635		6*35	6.2	14	35	25	AAG	n/a
F 2444-2640		6*40	6.2	14	40	30	AAG	n/a
F 2444-2645		6*45	6.2	14	45	35	AAG	n/a
F 2444-2650		6*50	6.2	14	50	40	AAG	n/a
F 2444-2660		6*60	6.2	14	60	50	AAG	1,500
F 2444-2670		6*70	6.2	14	70	60	AAG	2,000
F 2444-2675		6*75	6.2	14	75	65	AAG	n/a
F 2444-2680		6*80	6.2	14	80	70	AAG	n/a
F 2444-2630		8*30	8.2	18	30	20	AAB	n/a
F 2444-2835		8*35	8.2	18	35	25	AAB	n/a
F 2444-2840		8*40	8.2	18	40	30	AAB	1,000
F 2444-2850		8*50	8.2	18	50	40	AAB	900
F 2444-2860		8*60	8.2	18	60	50	AAB	n/a
F 2444-2865		8*65	8.2	18	65	55	AAB	n/a
F 2444-2870		8*70	8.2	18	70	60	AAB	n/a
F 2444-2875		8*75	8.2	18	75	65	AAB	n/a
F 2444-2880		8*80	8.2	18	80	70	AAB	700
F 2444-2810		8*100	8.2	18	100	90	AAB	500
F 2444-2812		8*120	8.2	18	120	110	AAB	n/a
F 2444-2140		10*40	10.2	20	40	30	AA10	n/a
F 2444-2145		10*45	10.2	20	45	35	AA10	n/a
F 2444-2150		10*50	10.2	20	50	40	AA10	750
F 2444-2160		10*60	10.2	20	60	50	AA10	n/a
F 2444-2170		10*70	10.2	20	70	60	AA10	n/a
F 2444-2175		10*75	10.2	20	75	65	AA10	n/a
F 2444-2180		10*80	10.2	20	80	70	AA10	n/a
F 2444-2190		10*90	10.2	20	90	80	AA10	n/a
F 2444-2100		10*100	10.2	20	100	90	AA10	n/a
F 2444-2111		10*110	10.2	20	110	100	AA10	n/a
F 2444-2120		10*120	10.2	20	120	110	AA10	n/a
F 2444-2250		12*50	12.2	25	50	35	AA12	n/a



# OPI U-bolts & Eye Bolt



 **DIN 315**  
Wing nut

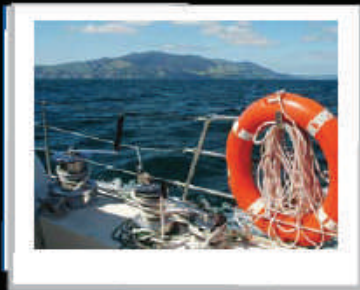
## DIN315


### Technical Data

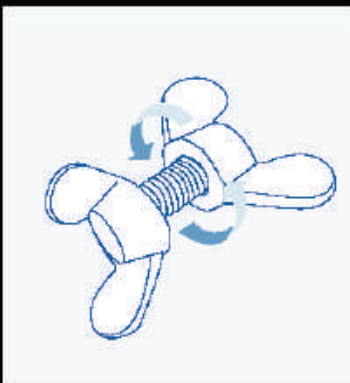
Casting material : AISI316 - DIN 1.4408  
Production : DIN315 - Nut - Cast  
Surface treatment : "E.P." (Electro polished)

### Field of application

Wing nuts are designed for screw onto external thread rods for tightening of a surface panels.



Design	DIN315	SIZE	H	M	T	
Material	SS316	(mm/inch)	(mm)	(thread)	(mm)	
	6331-5004	M4	9.5	M4	4	2,500
	6331-5005	M5	12.0	M5	6	5,000
	6331-5006	M6	16.0	M6	8	3,000
	6331-5008	M8	20.0	M8	10	1,500
	6331-5010	M10	25.0	M10	12	800
	6331-5012	M12	32.0	M12	14	400
	6331-5016	M16	36.0	M16	16	300
	6331-5020	M20	45.0	M20	20	120
	6331-5024	M24	56.0	M24	24	70
	6331-5316	3/16"	12.0	3/16"	6	5,000
	6331-5104	1/4"	16.0	1/4"	8	3,000
	6331-5516	5/16"	20.0	5/16"	10	1,500
	6331-5308	3/8"	25.0	3/8"	12	800
	6331-5102	1/2"	32.0	1/2"	14	400
	6331-5508	5/8"	36.0	5/8"	16	300
	6331-5304	3/4"	45.0	3/4"	20	120
	6331-5001	1"	56.0	1"	24	70



 **DIN 316**  
Wing bolt

## DIN316

### Technical Data

Casting material : AISI316 - DIN 1.4408  
Forging material : AISI316 - DIN 1.4901  
Production : DIN316 - Thread - Forged  
Surface treatment : "E.P." (Electro polished)

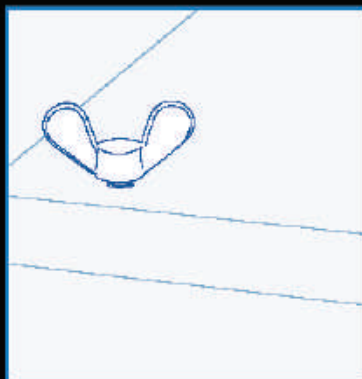
### Field of application

Wing bolts are designed for screw into internal threadholes for tightening of a surface panels.



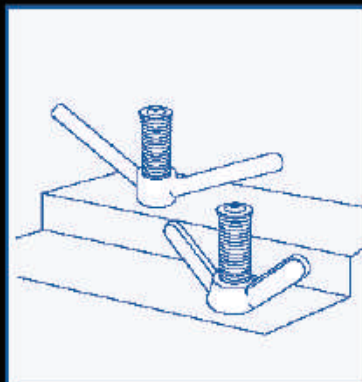
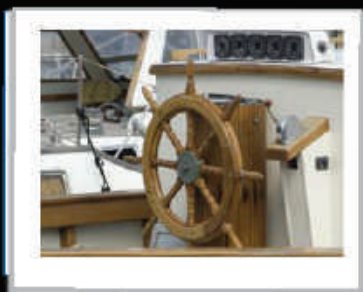
Design	DIN316	SIZE	H	L	M	T	
Material	SS316	(mm/inch)	(mm)	(mm)	(thread)	(mm)	
	6316-0210	5*10	12	10	M5	6	3,200
	6316-0515	5*15	12	15	M5	6	3,000
	6316-0520	5*20	12	20	M5	6	2,500
	6316-0525	5*25	12	25	M5	6	2,500
	6316-0530	5*30	12	30	M5	6	3,000
	6316-0535	5*35	12	35	M5	6	2,000
	6316-0616	6*16	16	16	M6	8	2,000
	6316-0620	6*20	16	20	M6	8	2,000

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### DIN 316

(Continue from previous page)



### S80701, S31501

#### Technical Data

Casting material : AISI 316 - DIN 1.4408  
 Production : S80701 - Nut - Cast  
 S31501 - Nut - Cast  
 Surface treatment : "E.P." (Electro polished)

#### Field of application

Wide wing nuts - long type and Wing nuts - long type are specifically designed for screw on to an external threaded rod for tightening of a surface panel. The wing profile allows easy gripping with the one hand motion. The long wing profile allows easy gripping with a two hand motion.



Denimco Partid	DIN316 SS316	SIZE (mm/inch)	H (mm)	L (mm)	M (thread)	T (mm)	
	6316-0625	6*25	16	25	M6	8	2,000
	6316-0630	6*30	16	30	M6	8	1,500
	6316-0635	6*35	16	35	M6	8	1,500
	6316-0640	6*40	16	40	M6	8	1,200
	6316-0650	6*50	16	50	M6	8	1,000
	6316-0816	8*16	20	16	M8	10	950
	6316-0820	8*20	20	20	M8	10	900
	6316-0825	8*25	20	25	M8	10	850
	6316-0830	8*30	20	30	M8	10	900
	6316-0840	8*40	20	40	M8	10	800
	6316-0850	8*50	20	50	M8	10	600
	6316-1020	10*20	25	20	M10	12	600
	6316-1025	10*25	25	25	M10	12	500
	6316-1030	10*30	25	30	M10	12	400
	6316-1040	10*40	25	40	M10	12	400
	6316-1050	10*50	25	50	M10	12	400
	6316-1060	10*60	25	60	M10	12	300
	6316-1080	10*80	25	80	M10	12	300
	6316-1220	12*20	32	20	M12	14	300
	6316-1224	12*24	32	24	M12	14	300
	6316-1235	12*35	32	35	M12	14	300
	6316-1240	12*40	32	40	M12	14	250
	6316-1250	12*50	32	50	M12	14	200
	6316-1280	12*80	32	80	M12	14	150
	6316-1625	16*25	36	25	M16	16	200
	6316-1630	16*30	36	30	M16	16	200
	6316-1660	16*60	36	60	M16	16	120
	6316-2030	20*30	45	30	M20	20	100
	6316-2080	20*80	45	80	M20	20	60
	6316-2495	24*95	56	95	M24	24	30
	6316-2150	1/2"*50	32	50	1/2"	14	200
	6316-5860	5/8"*60	36	60	5/8"	16	120
	6316-3480	3/4"*80	45	80	3/4"	20	60



**S80701** Wide wing nut - long type

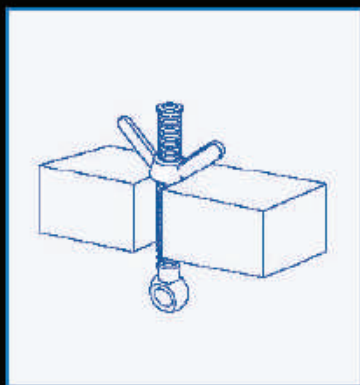


**S31501** Wing nut - long type

Denimco Partid	S80701 SS316	SIZE (mm)	L (mm)	L1 (mm)	M (thread)	T (mm)	
	6807-0116	M16	240	40	M16	30	50
	6807-0120	M20	240	40	M20	30	50
	6807-0124	M24	240	40	M24	30	50

Denimco Partid	S31501 SS316	SIZE (mm)	L (mm)	L1 (mm)	M (thread)	T (mm)	
	6305-0108	M8	51	18	M8	9.5	700
	6305-0110	M10	64	20	M10	12.0	600
	6305-0112	M12	74	23	M12	14.0	400
	6305-0116	M16	86	28	M16	16.0	300
	6305-0120	M20	108	36	M20	20.0	150
	6305-0122	M22	122	40	M22	22.0	100
	6315-0124	M24	134	45	M24	24.0	50

# OPI U-bolts & Eye Bolt



**S4600**  
Long wing bolt (with washer and nut)


## S4600

### Technical Data

Casting material : A18216 - DIN 1.4408  
Production : S4600 - Bolt - Cast  
Surface treatment : "E.R." (Electro polished)

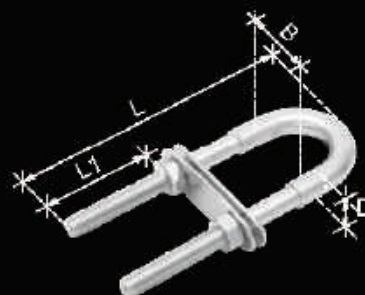
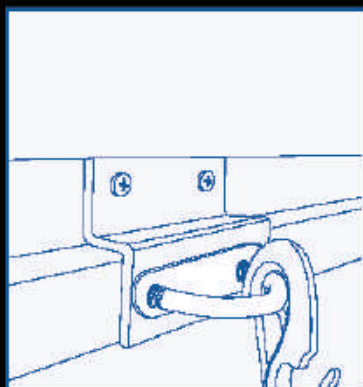
### Field of application

Long wing bolt (with washer and nut) are design for special purpose assembly where wing nut serves as a tightening device to the eye bolt.

Part No.	S4600	SIZE (mm)	C (mm)	C1 (mm)	L (mm)	M (thread)	T (mm)	
Material	SS316							
	6460-0850	8*50	8.0	18	50	M8	9	500
	6460-0860	8*60	8.0	18	60	M8	9	500
	6460-0875	8*75	8.0	18	75	M8	9	450
	6460-0810	8*100	8.0	18	100	M8	9	400
	6460-1060	10*60	10.0	20	60	M10	12	400
	6460-0108	10*80	10.0	20	80	M10	12	200
	6460-0101	10*100	10.0	20	100	M10	12	200
	6460-0112	10*120	10.0	20	120	M10	12	200
	6460-1280	12*80	12.3	25	80	M12	14	150
	6460-0121	12*100	12.3	25	100	M12	14	125
	6460-0125	12*150	12.3	25	150	M12	14	100
	6460-1216	12*160	12.3	25	160	M12	14	100
	6460-1610	16*100	16.0	32	100	M16	17	100
	6460-1612	16*120	16.0	32	120	M16	17	80
	6460-0161	16*150	16.0	32	150	M16	17	75
	6460-0166	16*160	16.0	32	160	M16	17	70
	6460-0162	16*200	16.0	32	200	M16	17	50
	6460-2012	20*120	18.0	40	120	M20	22	50
	6460-0201	20*150	18.0	40	150	M20	22	30
	6460-0216	20*160	18.0	40	160	M20	22	30
	6460-0202	20*200	18.0	40	200	M20	22	30
	6460-2214	22*140	20.0	43	140	M22	23	30
	6460-2220	22*200	20.0	43	200	M22	23	25
	6460-0241	24*100	22.0	45	100	M24	25	30
	6460-2416	24*160	22.0	45	160	M24	25	25
	6460-0242	24*200	22.0	45	200	M24	25	25
	6460-0245	24*250	22.0	45	250	M24	25	20







## SF413


### Technical Data

Forging material : AISI304 - DIN 1.4301 / AISI316 - DIN 1.4401  
 Production : SF413 - Bolt - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

U-bolts (with washer and nut) are designed for assembly onto a flat panel and serve as a pulling ring.

## SF413 U-bolt (with washer and nut)

Forma	SF413		SIZE	B	D	L	L1	M	
Material	SS304	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4413-0460	6413-0460	4*60	30	4	62	30	M4	750
	4413-0580	6413-0580	5*80	35	5	78	40	M5	600
	4413-0690	6413-0690	6*90	35	6	90	45	M6	200
	4413-0880	6413-0880	8*80	35	7	80	40	M8	200
	4413-0810	6413-0810	8*100	35	7	100	50	M8	200
	4413-1090	6413-1090	10*90	50	10	90	40	M10	100
	4413-1013	6413-1013	10*130	50	10	130	55	M10	100
	4413-1215	6413-1215	12*150	60	12	150	65	M12	60

## SF541, SF543, SF544, SF547, SF548, SF549 Long U-bolt (with washer and nut)

## SF541, SF543, SF544 SF547, SF548, SF549

### Technical Data

Forging material : AISI304 - DIN 1.4301 / AISI316 - DIN 1.4401  
 Production : SF541 - Bolt - Forged  
 SF543 - Bolt - Forged  
 SF544 - Bolt - Forged  
 SF547 - Bolt - Forged  
 SF548 - Bolt - Forged  
 SF549 - Bolt - Forged  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Long U-bolts (with washer and nut) are designed for assembly onto a flat panel and serve as a pulling ring.

Forma	SF541	SIZE	B	D	L	L1	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4541-1027	10*76	35	10	76	32	M8	180

Forma	SF543	SIZE	B	D	L	L1	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4543-1006	10*65	35	10	65	23	M8	200

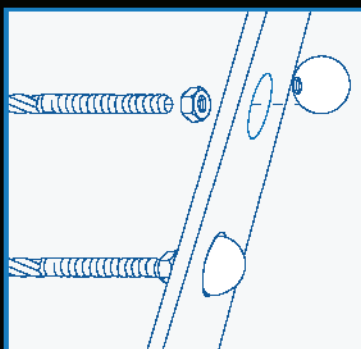
Forma	SF544	SIZE	B	D	L	L1	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4544-1090	10*90	35	10	90	47	M8	150

Forma	SF547	SIZE	B	D	L	L1	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4547-1011	10*115	35	10	115	47	M8	100

Forma	SF548	SIZE	B	D	L	L1	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4548-1014	10*140	35	10	140	47	M8	100

Forma	SF549	SIZE	B	D	L	L1	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4549-1016	10*165	35	10	165	47	M8	100





## SAB/APL

### Technical Data

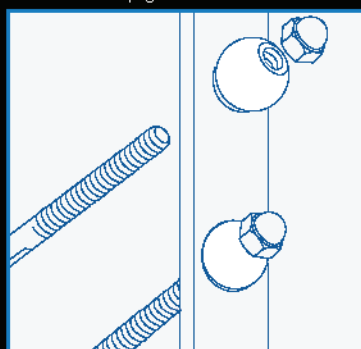
Casting material : AISI316 - DIN 1.4408  
Surface treatment : "M.F." (Matte Finished)

### Field of application

Architecture balls are designed as a neat and aesthetic end stopper to all types of threaded end fittings. It is best used for interior decoration.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page 85 - class 22 load characteristic



## SAB/T/APL

### Technical Data

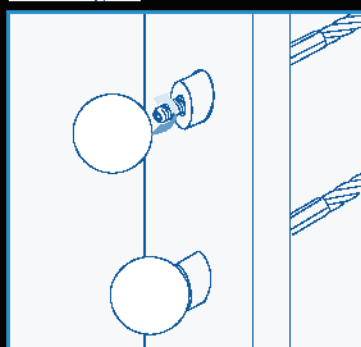
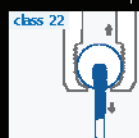
Casting material : AISI316 - DIN 1.4408  
Surface treatment : "M.F." (Matte Finished)

### Field of application

Architecture balls with through tapped hole are neat and aesthetic fasteners for all types of threaded end fittings. It is best used for interior decoration.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page 85 - class 22 load characteristic



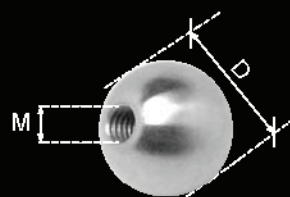
## SAH/APL

### Technical Data

Casting material : AISI316 - DIN 1.4408  
Surface treatment : "M.F." (Matte finished)

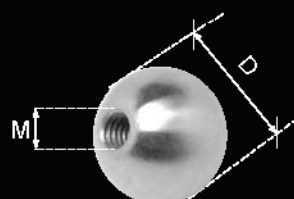
### Field of application

Angle hinges are designed to provide an accurate angle support for all types of threaded end fittings. It is best used for interior stair decorations.



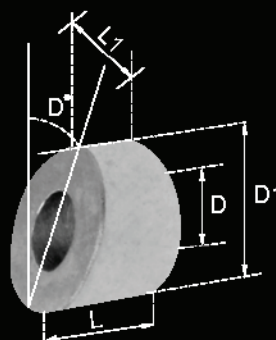
**SAB/APL**  
Architecture ball  
(right hand thread)

Remno.	SAB/APL	Ø D (mm)	M (thread)		B.L. <sup>(1)</sup> (kgs)
Material	SS316				
	6125-1503	15	M5	600	750
	6125-2003	20	M5	600	750
	6126-2045	20	M6	600	1,400
	6128-2506	25	M8	500	2,200



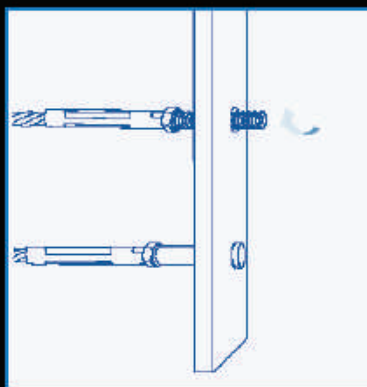
**SAB/T/APL**  
Architecture ball  
with through tapped hole (right hand thread)

Remno.	SAB/T/APL	Ø D (mm)	M (thread)		B.L. <sup>(1)</sup> (kgs)
Material	SS316				
	6125-1573	15	M5	600	750
	6125-2073	20	M5	600	750
	6126-2074	20	M6	600	1,400
	6128-2576	25	M8	500	2,200



**SAH/APL**  
Angled hinge

Remno.	SAH/APL	ANGLE (D°)	Ø D (mm)	Ø D1 (mm)	L (mm)	L1 (mm)	
Material	SS316						
	6182-0115	20	5.0	11	9.0	5	4,000
	6182-0136	20	6.0	13	9.7	5	3,000
	6182-0178	20	8.2	17	11.2	5	2,500
	6182-5115	25	5.0	11	10.0	5	4,000
	6182-5136	25	6.0	13	11.0	5	3,000
	6182-5178	25	8.2	17	12.9	5	2,500
	6183-0115	30	5.0	11	11.3	5	4,000
	6183-0136	30	6.0	13	12.5	5	3,000
	6183-0178	30	8.2	17	14.8	5	2,000
	6183-5115	35	5.0	11	12.7	5	3,000
	6183-5136	35	6.0	13	14.0	5	3,000
	6183-5178	35	8.2	17	16.9	5	2,000
	6184-0115	40	5.0	11	14.2	5	3,000
	6184-0136	40	6.0	13	15.9	5	3,000
	6184-0178	40	8.2	17	19.3	5	1,800



## SF7806TR

### Technical Data

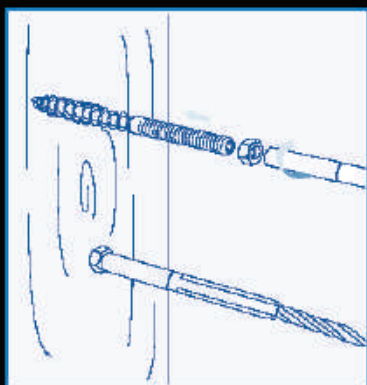
Forging material : AISI316 - DIN 1.4401  
Surface treatment : "E.P." (Electro polished)

### Field of application

Inside threaded domehead are designed as a neat and aesthetic end stopper for all types of threaded end fittings. It is best used for balustrading.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page 86 - class 22 load characteristic



## SF7801/IR, SF7801/IL

### Technical Data

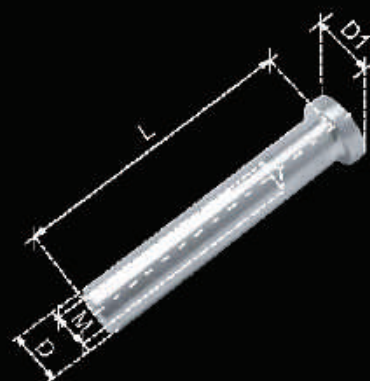
Forging material : AISI316 - DIN 1.4401  
Surface treatment : "MF" (Mechanically finished)

### Field of application

Inside threaded terminals are designed as a neat and aesthetic connector between a cable and all types of external threaded end fittings. It is best used in combination with wooden screw for a clean profile to a wood surface.

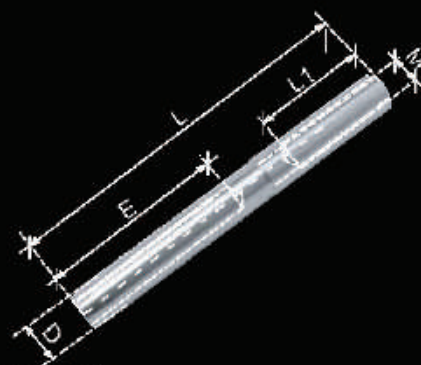
**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 10 load characteristic



**M** SF7806TR  
Inside threaded domehead  
(right hand thread)

Item No.	SIZE	Ø D	Ø D1	L	M		B.L. <sup>(1)</sup>
Material	(mm)	(mm)	(mm)	(mm)	(thread)		(kgs)
<b>SF7806TR</b>	SS316						
6780-6525	M5	7,13	10,0	40	M5	1,600	750
6780-6630	M6	8,00	11,5	45	M6	1,200	1,400
6780-6835	M8	11,00	14,0	55	M8	600	2,200



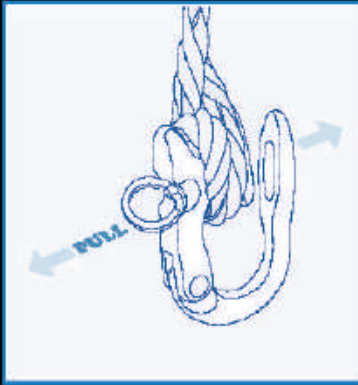
**M** SF7801/IR  
Inside threaded terminal (right hand thread),  
SF7801/IL  
Inside threaded terminal (left hand thread)

Item No.	Ø D	E	L	L1	M	DIA Ø CABLE		B.L. <sup>(2)</sup>
Material	(mm)	(mm)	(mm)	(mm)	(thread)	(mm)		(kgs)
<b>SF7801/IR</b>								
6780-1382	5,50	25	65	20	M5	3	2,000	600
6780-1383	6,35	25	65	20	M6	4	1,500	1,000
6780-1384	7,50	30	70	20	M6	5	1,200	1,400
6780-1385	9,00	40	85	25	M8	6	750	2,200

Item No.	Ø D	E	L	L1	M	DIA Ø CABLE		B.L. <sup>(2)</sup>
Material	(mm)	(mm)	(mm)	(mm)	(thread)	(mm)		(kgs)
<b>SF7801/IL</b>								
6780-1387	5,50	25	65	20	M5	3	2,000	600
6780-1388	6,35	25	65	20	M6	4	1,500	1,000
6780-1389	7,50	30	70	20	M6	5	1,200	1,400
6780-1390	9,00	40	85	25	M8	6	750	2,200







**M** S2464/S2466/S2468  
Snap shackle



## S2464, S2466, S2468

### Technical Data

Casting material : A19316 - DIN 1.9408  
 Forging material : A19316 - DIN 1.9401  
 : S2464, S2466, S2468  
 : Shackle - Cast

Surface treatment : "E.P." (Electro polished)

### Field of application

Snap shackles are designed for marine application where a rope friendly end with a quick release lever is required.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 load characteristics

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics

Part no.	<b>S2464</b>	SIZE	B	L	O			B.L. <sup>(3)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kg)
	<b>6246-4052</b>	52	12	52	10	500	2	830
Part no.	<b>S2466</b>	SIZE	B	L	O			B.L. <sup>(3)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kg)
	<b>6246-6066</b>	66	15	66	14	250	3	1,850
Part no.	<b>S2468</b>	SIZE	B	L	O			B.L. <sup>(3)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)			(kg)
	<b>6246-8096</b>	96	25	96	18	80	3	3,500

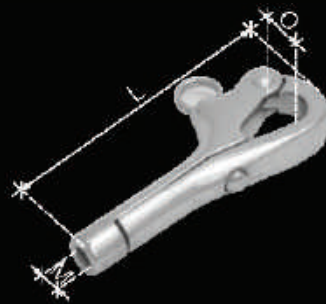
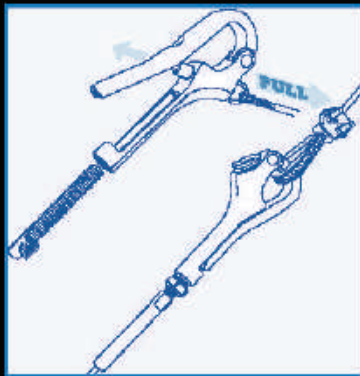


Fixed snap shackle



Snap shackle (cast swivel eye)

# OPI Snap shackles & Pelican hook: STRUDYNA.COM



**S2831**  
Pelican hook

**S2831-I3, I4, I6 / S2831I3, S2831I4**  
Pelican hook with stud terminal



**S2831, S2831-I3, S2831-I4,  
S2831-I6, S2831I3, S2831I4**

**Technical Data**

Casting material : AISI 316 - DIN 1.4408  
 Forging material : AISI 316 - DIN 1.4401  
 Production : S2831 - Hooks - Cast  
                   S2831-I3, S2831-I4, S2831-I6  
                   S2831I3, S2831I4  
 Hook - Cast  
 Terminal - Forged  
 Surface treatment : "E.P." (Electric polished)  
 RH : Right hand thread  
 LH : Left hand thread

**Field of application**

Pelican hooks are designed to be used on yacht mast. Terminals must be correctly selected for these applications. Pelican hooks with stud terminal are specially designed for yacht mast. Correct terminal must be chosen for the assembly.

**Note<sup>(1)</sup>** Standard safety factor for working load is 1/4 of breaking load.  
 Refer to page III - class I load characteristics

**Note<sup>(2)</sup>** Standard safety factor for working load is 1/4 of breaking load.  
 Refer to page IV - class II load characteristics

Termi- Material	<b>S2831</b>	SIZE (inch)	L (mm)	M (mm/inch)	Ø (mm)		B.L. <sup>(2)</sup> (kgs)
	6283-1006	3"	75	M6	13.0	400	1,200
	6283-1141	3"	75	1/4"LH-UNF	13.0	300	1,200
	6283-3104	3"	75	1/4"RH-UNF	13.0	300	1,200
	6283-3143	3"	75	1/4"LH-UNC	13.0	n/a	1,200
	6283-3142	3"	75	1/4"RH-UNC	13.0	300	1,200
	6283-1008	4"	100	M8	16.0	200	1,500
	6283-1561	4"	100	5/16"LH-UNF	16.0	200	1,500
	6283-1562	4"	100	5/16"RH-UNF	16.0	200	1,500
	6283-1012	6"	150	M12	25.5	50	3,500

Termi- Material	<b>S2831-I3</b>	SIZE (mm)	ØD (mm)	D1 (mm)	L (mm)	L1 (mm)	Dia Ø Cable (mm)			B.L. <sup>(2)</sup> (kgs)
	6283-1303	03I3	6.35	3.30	129	75	3	250	4	1,000
	6283-1413	04I3	7.54	4.30	130	75	4	300	4	1,000
	6283-1613	06I3	12.52	6.35	166	75	6	150	n/a	1,000

Termi- Material	<b>S2831-I4</b>	SIZE (mm)	ØD (mm)	D1 (mm)	L (mm)	L1 (mm)	Dia Ø Cable (mm)		B.L. <sup>(2)</sup> (kgs)
	6283-1414	04I4	7.54	4.30	168	100	4	150	1,500
	6283-1514	05I4	9.08	5.30	176	100	5	150	1,500
	6283-1614	06I4	12.52	6.35	183	100	6	100	1,500
	6283-1814	08I4	16.13	8.40	213	100	8	100	1,500

Termi- Material	<b>S2831I3</b>	SIZE (inch)	ØD (mm)	D1 (mm)	L (mm)	L1 (mm)	Dia Ø Cable (inch)		B.L. <sup>(2)</sup> (kgs)
	6283-1131	1/8"×1/4"	6.35	3.5	122	75	1/8"	300	1,200
	6283-1135	5/32"×1/4"	7.54	4.3	128	75	5/32"	300	1,200

Termi- Material	<b>S2831I4</b>	SIZE (inch)	ØD (mm)	D1 (mm)	L (mm)	L1 (mm)	Dia Ø Cable (inch)		B.L. <sup>(2)</sup> (kgs)
	6283-1143	3/16"×5/16"	9.08	5.10	160	100	3/16"	150	1,500



*Pelican hook with stud terminal*



### S890HP

#### Technical Data

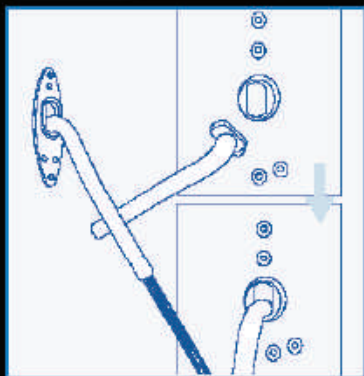
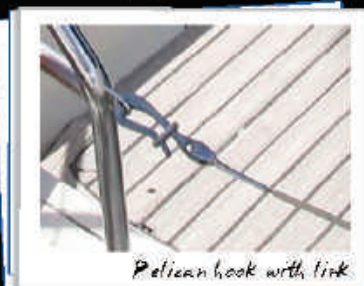
Casting material : AISI316 - DIN 1.4408  
 Production : S890HP - Hook - Cast  
 Surface treatment : "E.P." (Electro polished)

#### Field of application

Pelican hooks with link are designed for special on deck use on yacht and motorboats.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 2 load characteristics



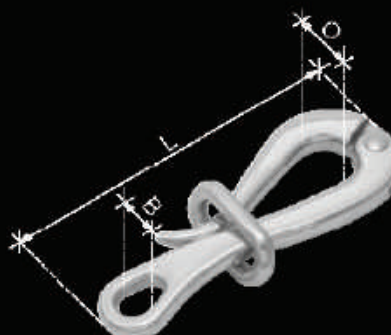
### SF8282, SF510, S510

#### Technical Data


Casting material : AISI316 - DIN 1.4408  
 Forging material : AISI316 - DIN 1.4401  
 Production : SF8282 - Terminal Plate - Forged  
 SF510 - Terminal Plate - Forged  
 S510 - Terminal Plate - Cast  
 Surface treatment : "E.P." (Electro polished)

#### Field of application

T-terminal and T-plate must be correctly chosen for the fittings to work properly on yacht mast assemblies.




### S890HP Pelican hook with link

Item no. Material	S890HP SS316	SIZE (inch)	B (mm)	L (mm)	Ø (mm)		B.L. <sup>(1)</sup> (kgs)
	6890-0004	4"	10	100	18	200	760
	6890-0006	6"	13	150	22	80	1,200



### SF8282 T-terminal


Item no. Material	SF8282 SS316	SIZE (mm)	ØD (mm)	ØF (mm)	L (mm)		PBC
	6828-2003	3	6.35	3.30	83	1,400	2
	6828-2004	4	7.54	4.30	101	500	3
	6828-2005	5	9.08	5.30	112	500	3
	6828-2006	6	12.52	6.35	138	200	n/a
	6828-2007	7	14.25	7.30	144	160	n/a
	6828-2008	8	16.13	8.30	184	100	n/a
	6828-2010	10	17.85	10.50	208	70	n/a



### SF510 T-plate (type 1)



### S510 T-plate (type 2)

Item no. Material	SF510 SS316	SIZE (mm)	C (mm)	L (mm)	ØS (mm)	
	6510-7180	7*18	18.0	60	4.2	1,000
	6510-9526	9.5*26	26.0	88	5.2	500
	6510-1534	15*34.5	34.5	123	6.3	200

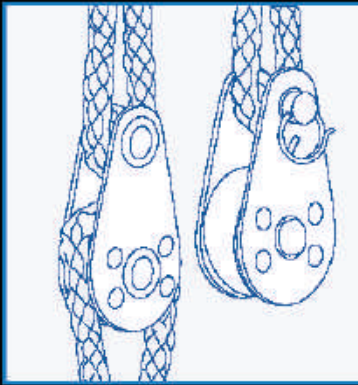
Item no. Material	S510 SS316	SIZE (mm)	C (mm)	L (mm)	ØS (mm)	
	6510-1736	17*36	36	140	6.6	150
	6510-1936	19*36	36	140	6.6	150



Piece per carton.



Plastic Back Card.



**SF8190**

**SF8240, SF8241**

**Technical Data**

Stamping material : AISI304 - DIN 1.4301 / AISI316 - DIN 1.4401  
 Production : SF8190 - Sheave - Nylon Block - Sheer, River - Pipe  
 : SF8240, SF8241 - Sheave - Nylon Block - Sheer, River - Pipe  
 Surface treatment : "MLF" (Matte finished)

**Field of application**

Light pulley blocks are designed for simple pulley function interior or in small boats.



**SF8248, SF8258**

**SF8248P, SF8258P**

**Technical Data**

Stamping material : AISI304 - DIN 1.4301  
 Production : SF8248, SF8258 - Sheave - Nylon Block - Sheer, River - Pin  
 : SF8248P, SF8258P - Sheave - Nylon Block - Sheer, River - Pipe  
 Surface treatment : "MLF" (Matte finished)

**Field of application**

Pulley blocks are designed for simple pulley function interior or in small boats.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 17 load characteristics



**SF8190**  
Light pulley block (type A)




**SF8240**  
Light pulley block (type B)



**SF8241**  
Light pulley block (type C)

Part no.	<b>SF8190</b>	SIZE	E	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4819-0019	19	20	37	6	850	300

Part no.	<b>SF8240</b>	SIZE	E	L	T		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	6824-0019	19	20	37	6	850	300

Part no.	<b>SF8241</b>	SIZE	E	L	T		B.L. <sup>(1)</sup>
Material	SS316	(mm)	(mm)	(mm)	(mm)		(kgs)
	6824-1019	19	20	37	6	850	300



**SF8248**  
Pulley block (type D)




**SF8248P**  
Pulley block (type E)





**SF8258**  
Pulley block (type F)




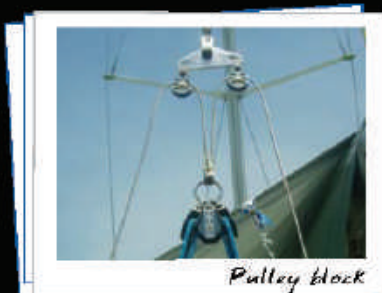
**SF8258P**  
Pulley block (type G)

Part no.	<b>SF8248</b>	SIZE	E	H	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4824-8225	25	25.5	9.5	38	6.5	800	350

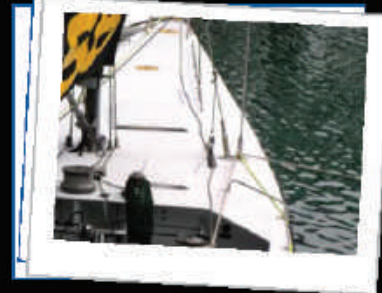
Part no.	<b>SF8248P</b>	SIZE	E	H	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4824-8025	25	25.5	9.5	38	6.5	800	350

Part no.	<b>SF8258</b>	SIZE	E	H	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4825-8025	25	26	10	44	6.5	700	350

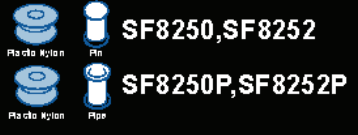
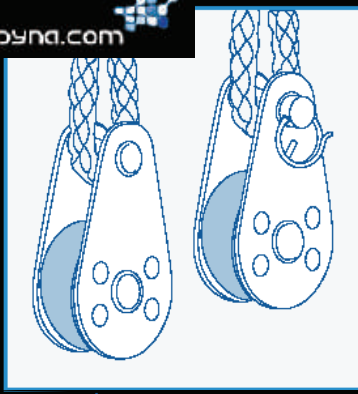
Part no.	<b>SF8258P</b>	SIZE	E	H	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4825-8125	25	26	10	44	6.5	700	350



Pulley block







**SF8250, SF8252**

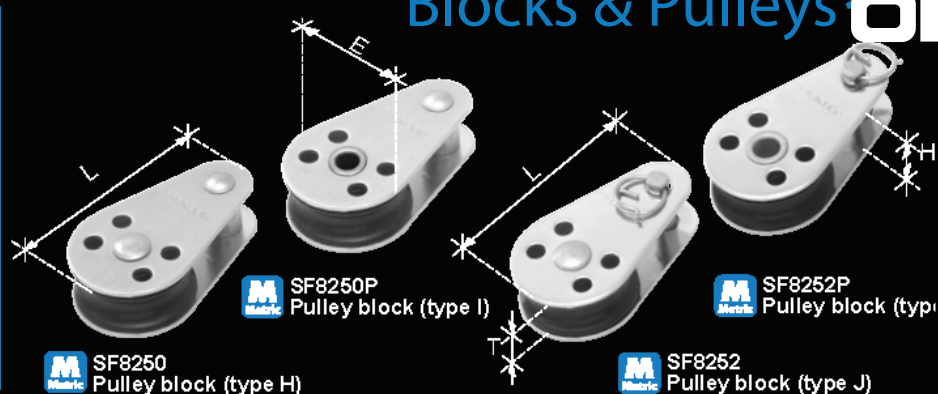
**SF8250P, SF8252P**

**Technical Data**  
 Stamping material: AISI304 - DIN 1.4301  
 Production : SF8250, SF8252 - Sheave - Nylon  
 Block - Sheet, Rivet - Pin  
 : SF8250P, SF8252P - Sheave - Nylon  
 Block - Sheet, Rivet - Pipe  
 Surface treatment : "M.F." (Matte finished)

**Field of application**  
 Pulley blocks are designed for simple pulley function interior or in small boats.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 17 load characteristics



**SF8250**  
Pulley block (type H)

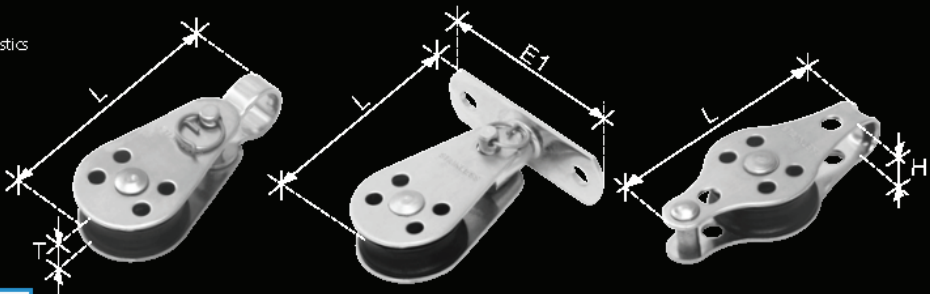
**SF8252**  
Pulley block (type J)

Item no.	SF8250	SIZE	E	H	L	T	B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-0025	25	26	10	45	6.5	600

Item no.	SF8250P	SIZE	E	H	L	T	B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-0125	25	26	10	45	6.5	600

Item no.	SF8252	SIZE	E	H	L	T	B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-2025	25	26	10	45	6.5	500

Item no.	SF8252P	SIZE	E	H	L	T	B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-2125	25	26	10	45	6.5	500



**SF8253**  
Pulley block (type L)

**SF8256**  
Pulley block (type N)

**SF8257**  
Pulley block (type P)



**SF8253P**  
Pulley block (type M)

**SF8256P**  
Pulley block (type O)

**SF8257P**  
Pulley block (type Q)

Item no.	SF8253	SIZE	E	H	L	T	B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-3025	25	26	10	57	6.5	500

Item no.	SF8253P	SIZE	E	H	L	T	B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-3125	25	26	10	57	6.5	300

Item no.	SF8256	SIZE	E	E1	H	L	T	B.L. <sup>(2)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-6025	25	26	48	16	50	6.5	350

Item no.	SF8256P	SIZE	E	E1	H	L	T	B.L. <sup>(2)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-6125	25	26	48	16	50	6.5	350

Item no.	SF8257	SIZE	E	H	L	T	B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-7025	25	26	10	58	6.5	600

Item no.	SF8257P	SIZE	E	H	L	T	B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/s)
	4825-7125	25	26	10	58	6.5	600



**SF8253, SF8256**

**SF8253P, SF8256P**

**SF8257P**

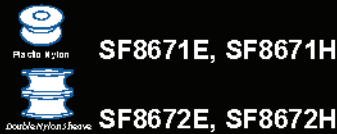
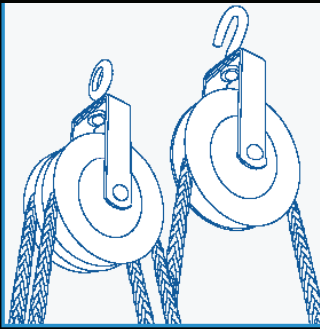
**Technical Data**  
 Stamping material: AISI304 - DIN 1.4301  
 Production : SF8253, SF8256, SF8257  
 Sheave - Nylon, Block - Sheet  
 Rivet - Pin  
 : SF8253P, SF8256P, SF8257P  
 Sheave - Nylon, Block - Sheet  
 Rivet - Pipe  
 Surface treatment : "M.F." (Matte finished)

**Field of application**  
 Pulley blocks are designed for simple pulley function interior or in small boats.

**Note:**<sup>(2)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 18 load characteristics

# OPI Blocks & Pulleys

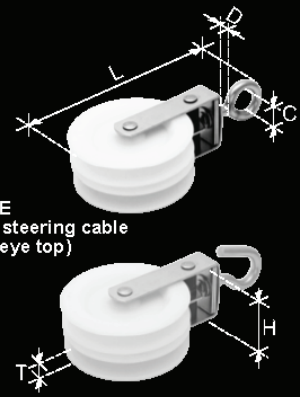


**Technical Data**  
 Stamping material : AISI304 - DIN 1.4301  
 Production : SF8671E, SF8671H,  
 SF8672E, SF8272H  
 Eye/Hook - Cast  
 Sheave - Nylon  
 Block (frame) - Stamped  
 Surface treatment : "M.F." (Matte finished)

**Field of application**  
 Steering cable pulleys are designed for simple steering of cables in light load environment. Choose between eye or hook top and single or double sheave assembly.







**SF8671E**  
 Steering cable pulley (eye top)

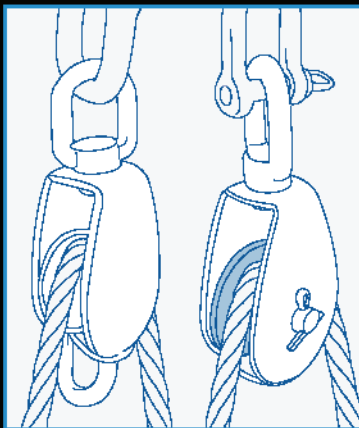


**SF8672E**  
 Double steering cable pulley (eye top)

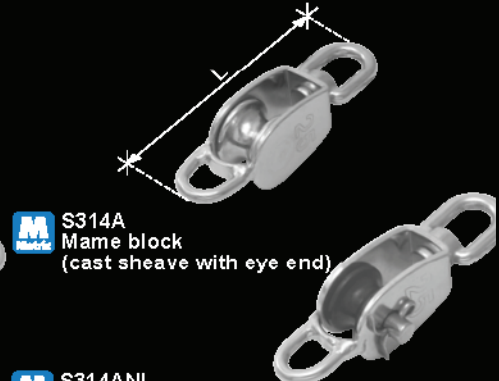
**SF8671H**  
 Steering cable pulley (hook top)

**SF8672H**  
 Double steering cable pulley (hook top)

Item no.	SIZE	C	Ø D	H	L	T	
<b>SF8671E</b>							
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	
4867-1065	65	14	6	18.1	110	13	100
<b>SF8671H</b>							
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	
4867-1165	65	14	6	18.1	110	13	100
<b>SF8672E</b>							
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	
4867-2065	65	14	6	34.7	125	13	40
<b>SF8672H</b>							
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	
4867-2165	65	14	6	34.7	125	13	40



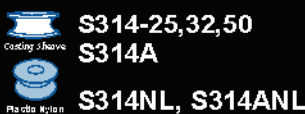
**S314-25,32, S314-50**  
 Mame block (cast sheave)



**S314A**  
 Mame block (cast sheave with eye end)

**S314NL**  
 Mame block (nylon sheave)

**S314ANL**  
 Mame block (nylon sheave with eye end)




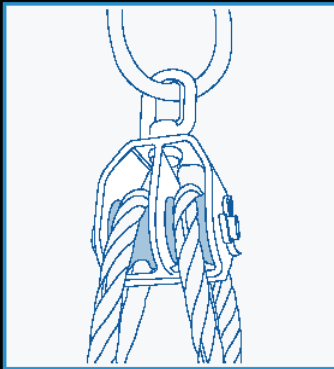
**Technical Data**  
 Casting material : AISI304 - DIN 1.4308  
 Stamping material : AISI304 - DIN 1.4301  
 Welding material : AISI304 - DIN 1.4301  
 Production : S314-25, S314-32, S314-50, S314A  
 Swivel eye - Cast, Sheave - Cast  
 Block (sheet) - Stamped  
 Eye end - Bar  
 : S314NL, S314ANL  
 Swivel eye - Cast, Sheave - Nylon  
 Block (sheet) - Stamped  
 Eye end - Bar  
 Surface treatment : "E.P." (Electro polished)

**Field of application**  
 Mame blocks are specifically designed for light pulley function in the finishing industry. Choose between different assembly setup for specific usage.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 19 load characteristics

Item no.	SIZE	Ø D	L	T		B.L. <sup>(1)</sup>
<b>S314-25</b>						(kgs)
Material	SS304	(mm)	(mm)	(mm)	(mm)	(kgs)
4314-0025	25	27	79	11.5	200	1,500
<b>S314-32</b>						
Material	SS304	(mm)	(mm)	(mm)	(mm)	(kgs)
4314-0032	32	31.7	91.5	12.5	150	1,800
<b>S314-50</b>						
Material	SS304	(mm)	(mm)	(mm)	(mm)	(kgs)
4314-0050	50	50.2	124	14.5	60	3,500
<b>S314A</b>						
Material	SS304	(mm)	(mm)	(mm)	(mm)	(kgs)
4314-0625	25	27.0	104	11.5	175	1,500
4314-0632	32	31.7	117	12.5	125	1,800
4314-0650	50	50.2	149	14.5	50	3,500
<b>S314NL</b>						
Material	SS304	(mm)	(mm)	(mm)	(mm)	(kgs)
4314-0325	25	25	80.5	10.0	200	1,500
4314-0332	32	32	93.0	10.0	150	1,700
4314-0350	50	50	124.0	13.5	60	2,800
<b>S314ANL</b>						
Material	SS304	(mm)	(mm)	(mm)	(mm)	(kgs)
4314-0425	25	25	103.5	10.0	175	1,500
4314-0432	32	32	115.5	10.0	125	1,700
4314-0450	50	50	147.0	13.5	60	2,800



**S315, S315A**



**S315NL, S315ANL**

**Technical Data**

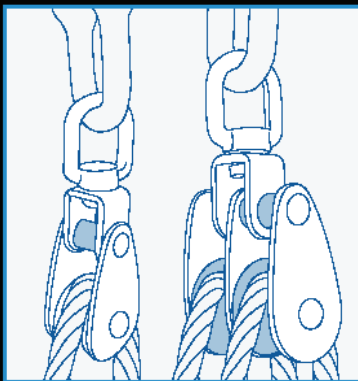
Casting material : AISI304 - DIN 1.4308  
 Stamping material : AISI304 - DIN 1.4301  
 Welding material : AISI304 - DIN 1.4301  
 Production :

- S315 - Swivel eye - Cast, Sheave - Cast
- Block (sheet) - Stamped
- S315A - Swivel eye - Cast, Sheave - Cast
- Block (sheet) - Stamped
- Eye end (bar) - Welded
- S315NL - Swivel eye - Cast, Sheave - Nylon
- Block (sheet) - Stamped
- S315ANL - Swivel eye - Cast, Sheave - Nylon
- Block (sheet) - Stamped
- Eye end (bar) - Welded

Surface treatment : "E.P." (Electro polished)

**Field of application**

Mame blocks are specifically designed for light pulley function in the finishing industry. Choose between different assembly setup for specific usage.



**S3141, S3151**



**S3141NL, S3151NL**

**Technical Data**

Casting material : AISI304 - DIN 1.4308  
 Stamping material : AISI304 - DIN 1.4301  
 Production :

- S3141 - Swivel eye - Cast, Sheave - Cast
- Block (sheet) - Stamped
- S3141NL, S3151NL - Swivel eye - Cast, Sheave - Nylon
- Block (sheet) - Stamped

Surface treatment : "E.P." (Electro polished)

**Field of application**

Mame blocks are specifically designed for light pulley function in the finishing industry. Choose between different assembly setup for specific usage.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 19 load characteristics



**M Matic** **S315**  
Mame block (double cast sheave)



**M Matic** **S315A**  
Mame block (double cast sheave with eye end)



**M Matic** **S315NL**  
Mame block (double nylon sheave)



**M Matic** **S315ANL**  
Mame block (double nylon sheave with eye end)

Item no.	<b>S315</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-0025	25	14.5	80.0	11.5	125	1,500
	4315-0032	32	14.5	92.5	12.5	80	1,500
	4315-0050	50	20.5	127.0	14.5	35	2,500

Item no.	<b>S315A</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-0125	25	14.5	100	11.5	100	1,500
	4315-0132	32	14.5	113	12.5	75	1,500
	4315-0150	50	20.5	148	14.5	30	2,500

Item no.	<b>S315NL</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-0325	25	14.5	82.5	10	125	1,500
	4315-0332	32	14.5	94.5	10	80	1,500
	4315-0350	50	20.5	127.0	14	50	2,500

Item no.	<b>S315ANL</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-0225	25	14.5	101	10.0	125	1,500
	4315-0232	32	14.5	113	10.0	80	1,500
	4315-0250	50	20.5	148	13.5	30	2,500



**M Matic** **S3141**  
Mame block (cast sheave)



**M Matic** **S3141NL**  
Mame block (nylon sheave)



**M Matic** **S3151**  
Mame block (double cast sheave)



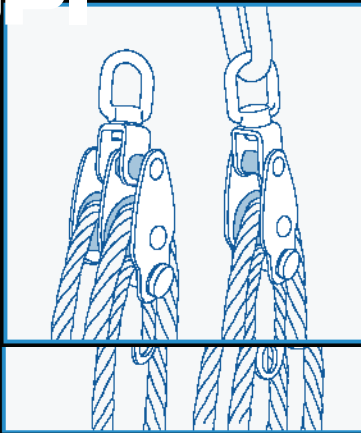
**M Matic** **S3151NL**  
Mame block (double nylon sheave)

Item no.	<b>S3141</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4314-1025	25	13.0	87.5	8	200	1,500
	4314-1032	32	14.5	100.0	9	160	1,700
	4314-1050	50	20.5	142.0	15	60	2,800

Item no.	<b>S3151</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-1025	25	13.0	87.5	8.0	150	950
	4315-1032	32	13.0	100.0	9.0	100	1,200
	4315-1050	50	20.5	142.0	14.5	35	2,800

Item no.	<b>S3141NL</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4314-1325	25	13.0	87.5	10.0	200	1,500
	4314-1332	32	14.5	100.0	10.0	200	1,700
	4314-1350	50	20.5	142.0	13.5	60	2,800

Item no.	<b>S3151NL</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-1325	25	13.0	87.5	10.0	150	950
	4315-1332	32	13.0	100.0	10.0	100	1,200
	4315-1350	50	20.5	142.0	13.5	35	2,800



## S3141/A, S3151/A

### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Stamping material: AISI304 - DIN 1.4301  
 Production : S3141/A, S3151/A  
 Swivel eye - Cast  
 Sheave - Cast  
 Block (sheet) - Stamped  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Mame blocks are specifically designed for the fishing industry where heavy loading and pulley is needed. Choose between Nylon and stainless sleeve according to use.



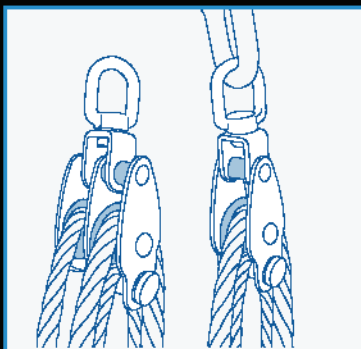
## S3141NL/A, S3151NL/A

### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Stamping material: AISI304 - DIN 1.4301  
 Production : S3141NL/A, S3151NL/A  
 Swivel eye - Cast  
 Sheave - Nylon  
 Block (sheet) - Stamped  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Mame blocks are specifically designed for the fishing industry where heavy loading and pulley is needed. Choose between Nylon and stainless sleeve according to use.



## S3141/B, S3151/B

### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Stamping material: AISI304 - DIN 1.4301  
 Production : S3141/B, S3151/B  
 Swivel eye - Cast  
 Sheave - Cast  
 Block (sheet) - Stamped  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Mame blocks are specifically designed for the fishing industry where heavy loading and pulley is needed. Choose between Nylon and stainless sleeve according to use.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

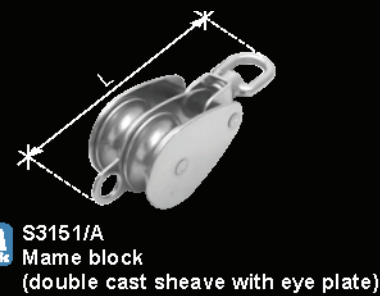
Refer to page IV - class 19 load characteristics



**S3141/A**  
Mame block  
(cast sheave with eye plate)



**S3141NL/A**  
Mame block  
(nylon sheave with eye plate)





**S3151/A**  
Mame block  
(double cast sheave with eye plate)





**S3151NL/A**  
Mame block  
(double nylon sheave with eye plate)

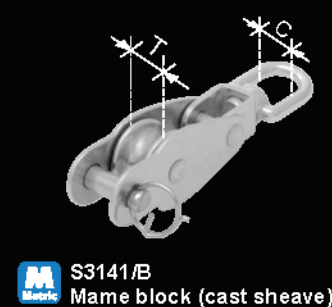


Item no.	<b>S3141/A</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4314-1125	25	13.0	103.5	8.0	200	1,500
	4314-1132	32	14.5	118.0	9.0	175	1,700
	4314-1150	50	20.5	162.0	14.5	60	2,800

Item no.	<b>S3151/A</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-1125	25	13.0	103.5	8.0	150	950
	4315-1132	32	13.0	118.0	9.0	100	1,200
	4315-1150	50	20.5	162.0	14.5	35	2,800

Item no.	<b>S3141NL/A</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4314-1425	25	13.0	103.5	10.0		1,500
	4314-1432	32	14.5	118.0	10.0		1,700
	4314-1450	50	20.5	162.0	13.5		2,800


Item no.	<b>S3151NL/A</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-1425	25	13.0	103.5	10.0		950
	4315-1432	32	13.0	118.0	10.0		1,200
	4315-1450	50	20.5	162.0	13.5		2,800




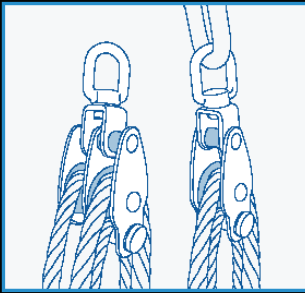
**S3141/B**  
Mame block (cast sheave)



**S3151/B**  
Mame block (double cast sheave)

Item no.	<b>S3141/B</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4314-1225	25	13.0	103.5	8	n/a	1,500
	4314-1232	32	14.5	118.0	9	150	1,700
	4314-1250	50	20.5	162.0	15	n/a	2,800

Item no.	<b>S3151/B</b>	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-1225	25	13.0	103.5	8	n/a	950
	4315-1232	32	14.5	118.0	9	100	1,200
	4315-1250	50	20.5	162.0	15	n/a	2,800



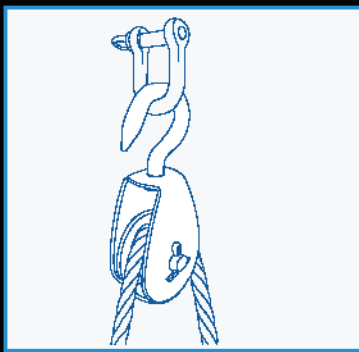
### S3141NL/B, S3151NL/B

#### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Stamping material : AISI304 - DIN 1.4301  
 Production : S3141NL/B, S3151NL/B  
 Swivel eye - Cast  
 Sheave - Cast  
 Block (sheet) - Stamped  
 Surface treatment : "E.P." (Electro polished)

#### Field of application

Mame blocks are specifically designed for the fishing industry where heavy loading and pulley is needed. Choose between Nylon and stainless sleeve according to use.



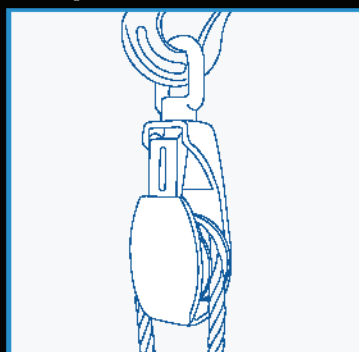
### S314/H1

#### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Forging material : AISI304 - DIN 1.4301  
 Stamping material : AISI304 - DIN 1.4301  
 Production : S314/H1 - Hook - Forged  
 Sheave - Cast  
 Block (sheet) - Stamped  
 Surface treatment : "E.P." (Electro polished)

#### Field of application

Mame blocks are specifically designed for the fishing industry where heavy loading and pulley is needed. Choose between Nylon and stainless sleeve according to use.



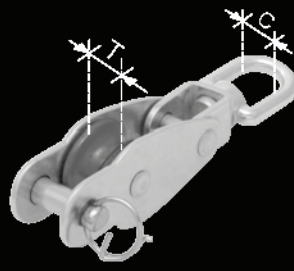
### S212-E1-50, S212-H1-50

#### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Production : S212-E1-50, S212-H1-50  
 Swivel eye/Hook - Cast  
 Sheave - Cast  
 Block - Cast  
 Surface treatment : "E.P." (Electro polished)

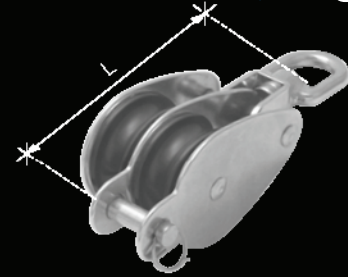
#### Field of application

Seine blocks are specifically designed for the fishing industry where nylon rope can be inserted with ease to the open latch system.



**Metric** S3141NL/B  
Mame block (nylon sheave)

Item no.	S3141NL/B	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4314-1525	25	13.0	103.5	10.0	r/a	1,500
	4314-1532	32	14.5	118.0	10.0	150	1,700
	4314-1550	50	20.5	162.0	13.5	50	2,800



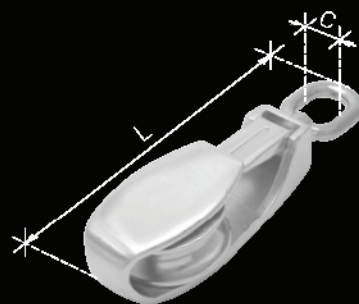
**Metric** S3151NL/B  
Mame block (double nylon sheave)

Item no.	S3151NL/B	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4315-1525	25	13.0	103.5	10.0	r/a	950
	4315-1532	32	14.5	118.0	10.0	100	1,200
	4315-1550	50	20.5	162.0	13.5	30	2,800



**Metric** S314/H1  
Mame block (cast sheave with hook top)

Item no.	S314/H1	SIZE	B	E	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4314-0150	50	18	45	84.75	14.5	60	1,200



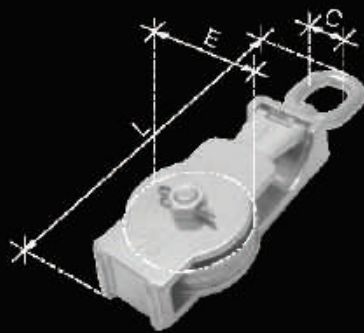
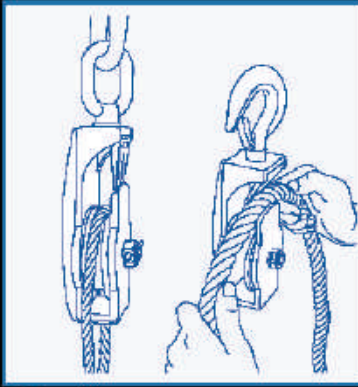
**Metric** S212-E1-50  
Seine block 50 mm (eye top)

Item no.	S212-E1-50	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4212-1150	50	20.5	50	157	14.5	30	1,400



**Metric** S212-H1-50  
Seine block 50 mm (hook top)

Item no.	S212-H1-50	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4212-2050	50	24	50	184	14.5		1,400



**M** S212-E1-75  
Seine block 75 mm (eye top)

**M** S212-H1-75  
Seine block 75 mm (hook top)



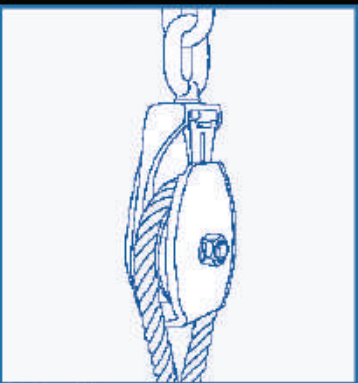
## S212-E1-75, S212-H1-75

**Technical Data**  
Casting material : AISI 304 - DIN 1.4308  
Production : S212-E1-75, S212-H1-75  
Swivel eye/Hook - Cast  
Sheave - Cast  
Block - Cast

Surface treatment : "E.P." (Electro polished)

### Field of application

Seine blocks are specifically designed for the fishing industry where nylon rope can be inserted with ease to the open latch system.



**M** S212-E1-100  
Seine block 100 mm (eye top)

**M** S212-H1-100  
Seine block 100 mm (hook top)



## S212-E1-100, S212-H1-100

**Technical Data**  
Casting material : AISI 304 - DIN 1.4308  
Production : S212-E1-100, S212-H1-100  
Swivel eye/Hook - Cast  
Sheave - Cast  
Block - Cast


Surface treatment : "E.P." (Electro polished)

### Field of application


Seine blocks are specifically designed for the fishing industry where nylon rope can be inserted with ease to the open latch system.


**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

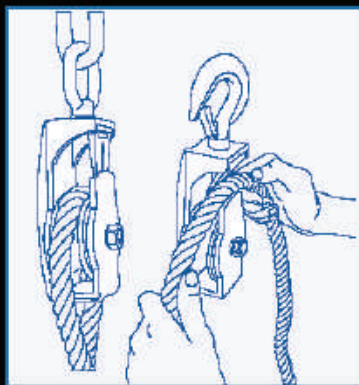
Refer to page M - class 19 load characteristics

Formo	S212-E1-75	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4212-1175	75	25	75	220	15	15	3,500

Formo	S212-H1-75	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4212-3175	75	25	75	242	15	15	2,300

Formo	S212-E1-100	SIZE	B	C	E	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4212-3175	100	43	70	100	17	8	5,000

Formo	S212-H1-100	SIZE	B	C	E	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4212-2100	100	43	25	100	17	5	2,300



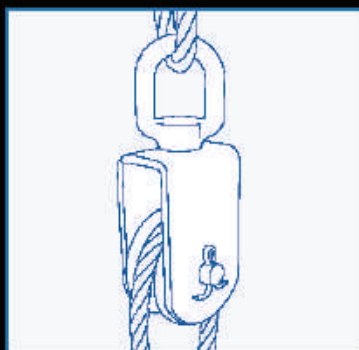
## S212L-E1, S212L-H1

### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Production : S212L-E1, S212L-H1  
 Swivel eye/Hook - Cast  
 Sheave - Cast  
 Block - Cast  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Seine blocks are specifically designed for the fishing industry where nylon rope can be inserted with ease to the open latch system.



## S313-E1, S313NL-E1

### Technical Data

Casting material : AISI304 - DIN 1.4308  
 Forging material : AISI304 - DIN 1.4301  
 Production : S313-E1 - Swivel eye - Cast  
                   Sheave - Cast  
                   Block (sheet) - Stamped  
 S313NL-E1 Swivel eye - Cast  
                   Sheave - Nylon  
                   Block (sheet) - Stamped  
 Surface treatment : "E.P." (Electro polished)

### Field of application

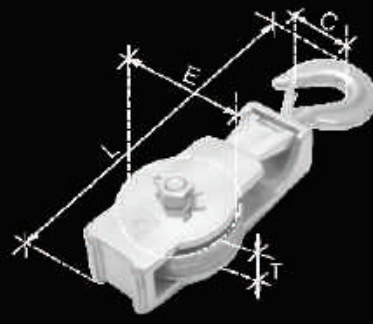
Taruma blocks are specifically designed for the fishing industry where heavy loading and pulley is needed. Choose between Nylon and stainless steel according to use.

**Notes<sup>(1)</sup>** Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 19 load characteristic



**M** S212L-E1  
Seine block - heavy type (eye top)



**M** S212L-H1  
Seine block - heavy type (hook top)

Item No.	S212L-E1	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4212-2175	75	24	75	220	22	12	3,500

Item No.	S212L-H1	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4212-2275	75	25	75	270	22	15	2,300



**M** S313-E1  
Taruma block (cast sheave with brass bushing)

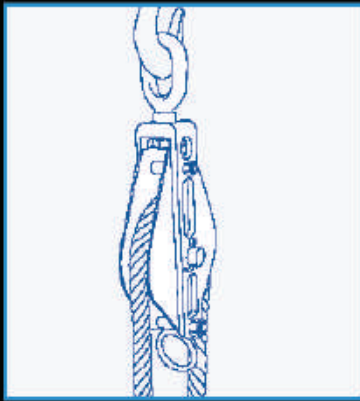


**M** S313NL-E1  
Taruma block (nylon sheave)

Item No.	S313-E1	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4313-3050	50	20.5	124	14	60	3,500
	4313-3075	75	24.0	170	16	30	4,000
	4313-3100	100	24.0	205	19	12	5,500

Item No.	S313NL-E1	SIZE	C	L	T		B.L. <sup>(1)</sup>
Material	SS304	(mm)	(mm)	(mm)	(mm)		(kgs)
	4313-4450	50	20.5	124	13.5	60	1,500



**S210-E1**  
Single heavy block  
(eye top)

**S210-E2**  
Double heavy block  
(eye top)

**S210-E3**  
Triple heavy block  
(eye top)



## S210-E1, S210-E2, S210-E3

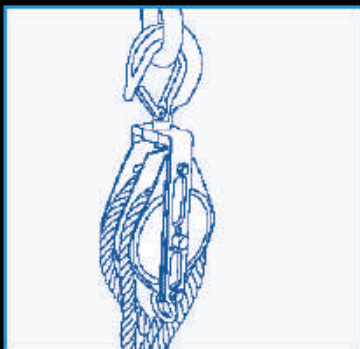
### Technical Data

Casting material : AISI 304 - DIN 1.4308  
Welding material : AISI 304 - DIN 1.4301  
Production : S210-E1, S210-E2, S210-E3

Shivel eye - Cast  
Sheave - Cast  
Block (shear) - Stamped  
Block (frame) - Cast  
Eye and (Rod) - Cast  
Surface treatment : "E.P." (Electro polished)

### Field of application

Heavy blocks are designed for heavy duty jobs. Choose between single, double or triple sheave.



**S210-H1**  
Single heavy block (hook top)

**S210-H2**  
Double heavy block (hook top)



## S210-H1, S210-H2

### Technical Data

Casting material : AISI 304 - DIN 1.4308  
Forging material : AISI 204 - DIN 1.4301  
Rod : AISI 304 - DIN 1.4301  
Production : S210-H1, S210-H2

Hook - Cast  
Sheave - Cast  
Block - Forged  
Eye and - Rod  
Surface treatment : "E.P." (Electro polished)

### Field of application

Heavy blocks are designed for heavy duty jobs in fishing industry. Choose between single or double sheave assembly.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.


Refer to page IV - class 191 load characteristic

Part no.	S210-E1	SIZE	E	L	T		B.L. <sup>(1)</sup> (kg)
Material	SS304	(mm)	(mm)	(mm)	(mm)		


4210-1175	75	83	255	16	15	3,500
4210-1110	100	113	325	19	6	5,500
4210-1125	125	140	350	20	4	8,500

Part no.	S210-E2	SIZE	E	L	T		B.L. <sup>(1)</sup> (kg)
Material	SS304	(mm)	(mm)	(mm)	(mm)		


4210-1275	75	83	260	16	10	3,500
4210-1210	100	113	325	19	4	5,500
4210-1212	125	140	358	20	3	8,500

Part no.	S210-E3	SIZE	E	L	T		B.L. <sup>(1)</sup> (kg)
Material	SS304	(mm)	(mm)	(mm)	(mm)		

4210-1310	100	113	325	19	3	5,500
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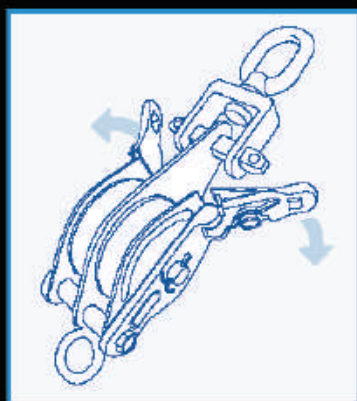
Part no.	S210-H1	SIZE	Ø C	E	L	T		B.L. <sup>(1)</sup> (kg)
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		

4210-2175	75	20	83	275	16	12	2,300
4210-2110	100	35	113	340	19	5	2,300
4210-2112	125	35	140	385	20	4	3,950

Part no.	S210-H2	SIZE	Ø C	E	L	T		B.L. <sup>(1)</sup> (kg)
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		

4210-2275	75	20	83	280	16	10	2,300
4210-2210	100	35	113	340	19	4	2,300
4210-2212	125	35	140	395	20	3	3,950





**S211-E1, S211-E2**  
**S211-H1, S211-H2**

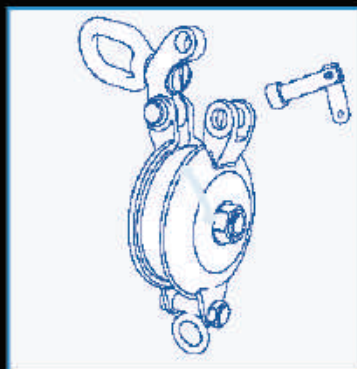
**Technical Data**

Casting material : A191304 - DIN 1.4308  
 Forging material : A191304 - DIN 1.4301  
 Rod : A191304 - DIN 1.4301  
 Production : S211-E1, S211-E2, S211-H1, S211-H2

Swivel eye/ Hook - Cast  
 Sheave - Cast  
 Block - Forged  
 Eye end - Rod  
 Surface treatment : "E.P." (Electro polished)

**Field of application**

Snatch block provides the extra versatility of open latch for easy loading and unloading of rope. Choose between hook or eye top and single or double sheave assembly.



**S213-E1**

**Technical Data**

Casting material : A191304 - DIN 1.4308  
 Welding material : A191304 - DIN 1.4301  
 Production : S213-E1 - Swivel eye - Cast  
 Sheave - Cast  
 Block - Cast  
 Eye end (rod) - Welded  
 Surface treatment : "E.P." (Electro polished)

**Field of application**

Taruma blocks are designed ball bearing and copper internal rings for heavy duty pulley applications. Top lever can be opened with a lever pin for easy loading and unloading of ropes.

**Note:** <sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 1 \* load characteristic



**S211-E1**  
Single snatch block (eye top)



**S211-E2**  
Double snatch block (eye top)



**S211-H1**  
Single snatch block (hook top)



**S211-H2**  
Double snatch block (hook top)

Item no.	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Weight	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
<b>S211-E1</b>							
SS304							
4210-1175	75	20	83	250	15	10	3,500
4210-1110	100	35	113	315	18	5	5,000
4210-1125	125	35	140	355	20	5	7,700

Item no.	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Weight	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
<b>S211-E2</b>							
SS304							
4211-2075	75	20	83	290	15	8	3,500
4211-2100	100	35	113	315	17	5	5,000
4211-2125	125	35	140	380	20	n/a	7,700

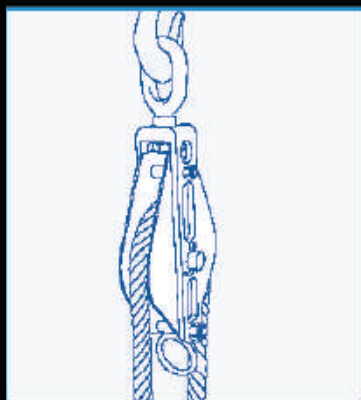
Item no.	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Weight	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
<b>S211-H1</b>							
SS304							
4211-2175	75	20	83	270	16	12	2,300
4211-2110	100	35	113	335	19	5	2,300
4211-2112	125	35	140	360	20	4	3,950

Item no.	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Weight	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
<b>S211-H2</b>							
SS304							
4211-2275	75	20	83	305	15	6	2,300
4211-2210	100	35	113	345	17	n/a	2,300
4211-2212	125	35	140	390	20	n/a	3,950



**S213-E1**  
Taruma block (eye top)

Item no.	SIZE	B	C	E	T		B.L. <sup>(1)</sup>
Weight	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
<b>S213-E1</b>							
SS316							
6213-1175	75	20	20	75	16	12	4,000
6213-1110	100	24	20	100	16	8	6,000
6213-1125	125	27	30	125	18	4	8,000
6213-1150	150	30	30	150	20	2	10,000



**S210-E1**  
Single heavy block  
(eye top)

**S210-E2**  
Double heavy block  
(eye top)

**S210-E3**  
Triple heavy block  
(eye top)



## S210-E1, S210-E2, S210-E3


### Technical Data


Casting material : AISI 304 - DIN 1.4308  
Welding material : AISI 304 - DIN 1.4301

Production : S210-E1, S210-E2, S210-E3  
Swinel eye - Cast  
Sheave - Cast  
Block (shear) - Stamped  
Block (frame) - Cast  
Eye end (Rod) - Cast  
Surface treatment : "E.P." (Electro polished)

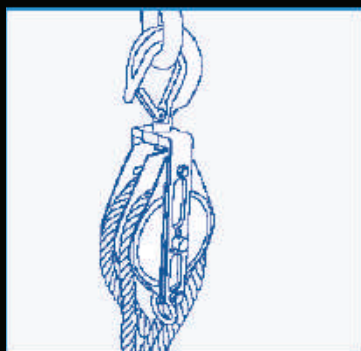
### Field of application

Heavy blocks are designed for heavy duty jobs. Choose between single, double or triple sheave.

Partno	S210-E1	SIZE	E	L	T		B.L. <sup>(1)</sup> (kgs)
Material	SS304	(mm)	(mm)	(mm)	(mm)		
	4210-1175	75	83	255	16	15	3,500
	4210-1110	100	113	325	19	6	5,500
	4210-1125	125	140	350	20	4	8,500

Partno	S210-E2	SIZE	E	L	T		B.L. <sup>(1)</sup> (kgs)
Material	SS304	(mm)	(mm)	(mm)	(mm)		
	4210-1275	75	83	260	16	10	3,500
	4210-1210	100	113	325	19	4	5,500
	4210-1212	125	140	358	20	3	8,500

Partno	S210-E3	SIZE	E	L	T		B.L. <sup>(1)</sup> (kgs)
Material	SS304	(mm)	(mm)	(mm)	(mm)		
	4210-1310	100	113	325	19	3	5,500



**S210-H1**  
Single heavy block (hook top)

**S210-H2**  
Double heavy block (hook top)

## S210-H1, S210-H2

### Technical Data

Casting material : AISI 304 - DIN 1.4308  
Forging material : AISI 304 - DIN 1.4301  
Rod : AISI 304 - DIN 1.4301


Production : S210-H1, S210-H2  
Hook - Cast  
Sheave - Cast  
Block - Forged  
Eye end - Rod  
Surface treatment ("E.P.") (Electro polished)


### Field of application

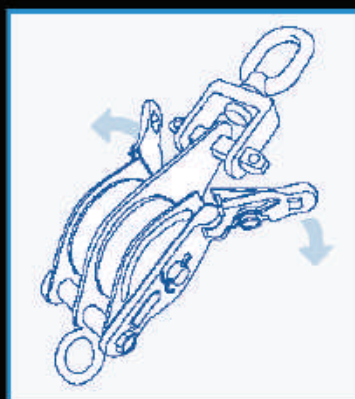
Heavy blocks are designed for heavy duty jobs in fishing industry. Choose between single or double sheave assembly.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 191 load characteristic

Partno	S210-H1	SIZE	Ø C	E	L	T		B.L. <sup>(1)</sup> (kgs)
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		
	4210-2175	75	20	83	275	16	12	2,300
	4210-2110	100	35	113	340	19	5	2,300
	4210-2112	125	35	140	365	20	4	3,950

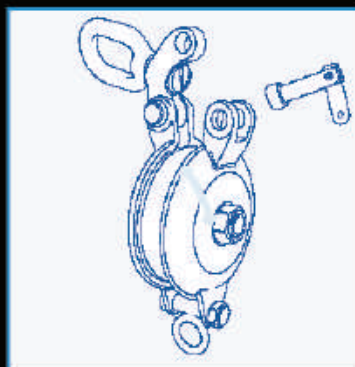
Partno	S210-H2	SIZE	Ø C	E	L	T		B.L. <sup>(1)</sup> (kgs)
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		
	4210-2275	75	20	83	260	16	10	2,300
	4210-2210	100	35	113	340	19	4	2,300
	4210-2212	125	35	140	395	20	3	3,950



**S211-E1, S211-E2**  
**S211-H1, S211-H2**

**Technical Data**  
 Casting material : A19 304 - DIN 1.4308  
 Forging material : A19 304 - DIN 1.4301  
 Rod : A19 304 - DIN 1.4301  
 Production : S211-E1, S11-E2, S11-H1, S211-H2  
 Swivel eye/ Hook : Cast  
 Sheave : Cast  
 Block : Forged  
 Eye end - Rod  
 Surface treatment : "E.P." (Electro polished)

**Field of application**  
 Snatch block provides the extra versatility of open latch for easy loading and unloading of rope. Choose between hook or eye top and single or double sheave assembly.



**S213-E1**

**Technical Data**  
 Casting material : A19304 - DIN 1.4308  
 Welding material : A19304 - DIN 1.4301  
 Production : S213-E1 - Swivel eye - Cast  
 Sheave : Cast  
 Block : Cast  
 Eye end (rod) - Welded  
 Surface treatment : "E.P." (Electro polished)

**Field of application**  
 Taruma blocks are designed ball bearing and copper internal rings for heavy duty pulley applications. Top lever can be opened with a lever pin for easy loading and unloading of ropes.

**Note:**<sup>(1)</sup> Standard safety factor for working load is 1/4 of breaking load.

Refer to page IV - class 19 load characteristic



**S211-E1**  
Single snatch block (eye top)



**S211-E2**  
Double snatch block (eye top)



**S211-H1**  
Single snatch block (hook top)



**S211-H2**  
Double snatch block (hook top)

Item no.	<b>S211-E1</b>	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Weight	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4210-1175	75	20	83	250	15	10	3,500
	4210-1110	100	35	113	315	18	5	5,000
	4210-1125	125	35	140	355	20	5	7,700

Item no.	<b>S211-E2</b>	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Weight	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4211-2075	75	20	83	290	15	8	3,500
	4211-2100	100	35	113	315	17	5	5,000
	4211-2125	125	35	140	380	20	n/a	7,700

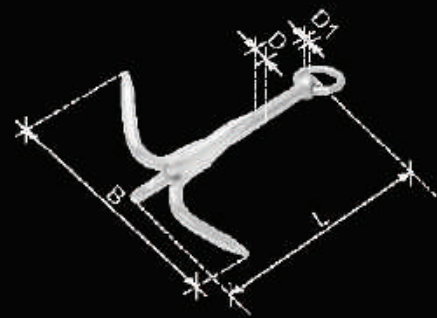
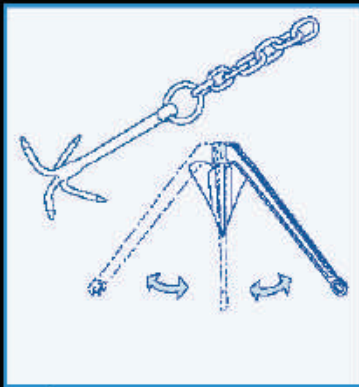
Item no.	<b>S211-H1</b>	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Weight	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4211-2175	75	20	83	270	16	12	2,300
	4211-2110	100	35	113	335	19	5	2,300
	4211-2112	125	35	140	360	20	4	3,950

Item no.	<b>S211-H2</b>	SIZE	C	E	L	T		B.L. <sup>(1)</sup>
Weight	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	4211-2275	75	20	83	305	15	6	2,300
	4211-2210	100	35	113	345	17	n/a	2,300
	4211-2212	125	35	140	390	20	n/a	3,950



**S213-E1**  
Taruma block (eye top)

Item no.	<b>S213-E1</b>	SIZE	B	C	E	T		B.L. <sup>(1)</sup>
Weight	SS316	(mm)	(mm)	(mm)	(mm)	(mm)		(kgs)
	6213-1175	75	20	20	75	16	12	4,000
	6213-1110	100	24	20	100	16	8	6,000
	6213-1125	125	27	30	125	18	4	8,000
	6213-1150	150	30	30	150	20	2	10,000



**M** S4100  
Folding anchor

**M** S3230  
Hook anchor




## S4100, S4200, S3230

### Technical Data

Casting material : AISI 316 - DIN 1.4401  
 Forging material : AISI 204 - DIN 1.4301  
 Production : S4100 - Anchor - Cast  
 S4200 - Anchor - Cast  
 S3230 - Anchor - Welded  
 Surface treatment : \*M.P.\* (Mirror polished)  
 \*E.P.\* (Electro polished)

### Field of application

Folding anchors are casted with highest precision in material to avoid rust during sea operations.  
 Flaw anchors are casted with highest precision in material to avoid rust during sea operations.  
 Hook anchors are TIG Argon welded with highest precision in material to avoid rust during sea operations.

Design	S4100	SIZE	B	Ø D	L	
Material	SS316	(kgs/mm)	(mm)	(mm)	(mm)	
	6410-0105	1.5	280	17.00	280	rv/a
	6410-0003	3.0	325	20.00	330	8
	6410-0005	5.0	410	21.90	400	2
	6410-0007	7.0	470	25.00	460	2
	6410-0010	10.0	575	28.18	523	2

Design	S3230	SIZE	B	Ø D	Ø D1	L	
Material	SS304	(kgs/mm)	(mm)	(mm)	(mm)	(mm)	
	4323-0200	200	145	13	6	205	30
	4323-0240	240	220	16	8	250	10



## Instructions for application of S4100



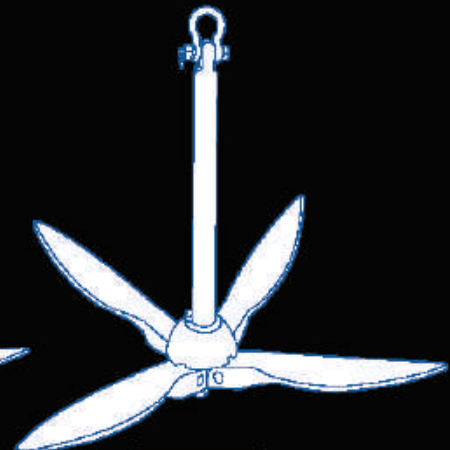
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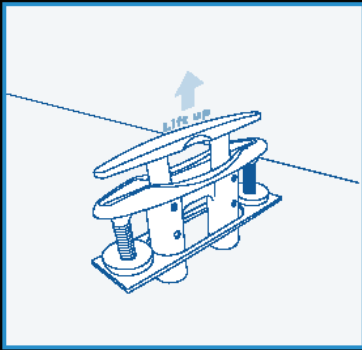
2



3



4



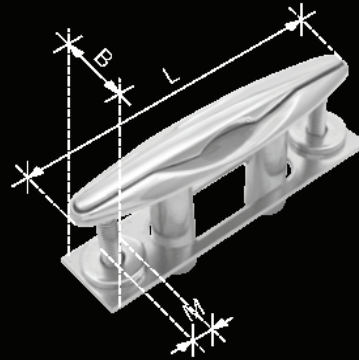
## S301

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S301 - Cleat - Cast  
 Surface treatment : "M.P." (Mirror polished)

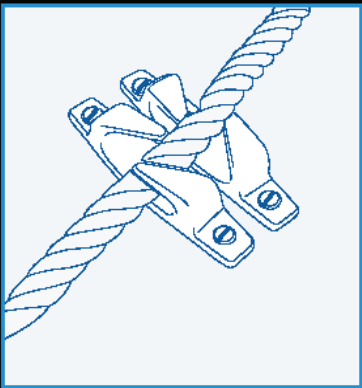
### Field of application

Pull up cleats are designed for assembly onto motorboats with internal rest settings for a strim line appearance.



**S301**  
Pull up cleat

Item no.	S301	SIZE	B	L	M	
Material	SS316	(in ch)	(mm)	(mm)	(thread)	
	6301-0405	4.5"	30.5	121.6	5/16"-18UNC	50
	6301-0600	6"	38.0	160.0	3/8"-16UNC	20
	6301-0800	8"	51.0	214.3	3/8"-16UNC	10



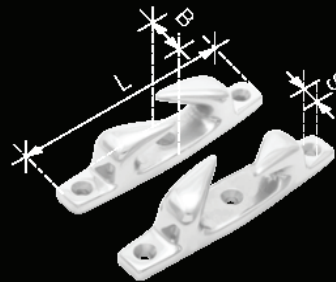
## S506L, S506R

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S506L, S506R - Chocks - Cast  
 Surface treatment : "M.P." (Mirror polished)

### Field of application

Skene chocks are manufactured with highest precision in casting material to avoid any rust during sea application.

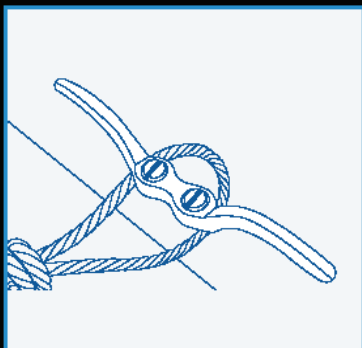


**S506L, S506R**  
Skene chocks

Item no.	S506L	SIZE	B	L	S	
Material	SS316	(in ch)	(mm)	(mm)	(mm)	
	6506-1412	4,1/2"	23	114	5	130
	6506-1006	6"	34	150	6	50

Item no.	S506R	SIZE	B	L	S	
Material	SS316	(in ch)	(mm)	(mm)	(mm)	
	6506-2412	4,1/2"	23	114	5	130
	6506-2006	6"	34	150	6	50



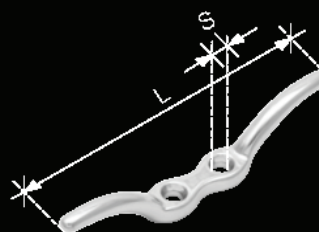
## S4015

### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S4015 - Cleat - Cast  
 Surface treatment : "E.P." (Electro polished)

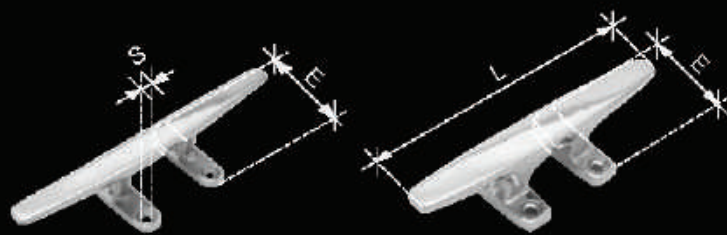
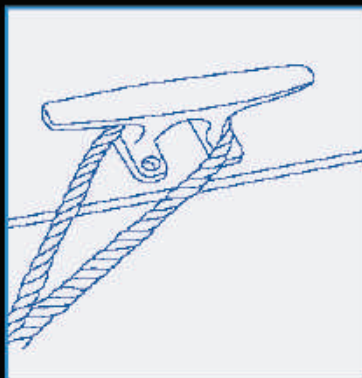
### Field of application

Rope cleats are manufactured with highest precision in casting material to avoid any rust during sea application.



**S4015**  
Rope cleat

Item no.	S4015	SIZE	L	S	
Material	SS316	(in ch)	(mm)	(mm)	
	6401-5212	2,1/2"	68	4,5	2,000
	6401-5412	4,1/2"	114	5,8	500
	6401-5006	6"	150	6,7	250



**S505**  
Trim line cleat

**S505H**  
Trim line cleat - heavy type

## S505, S505H

### Technical Data

Casting material : A19316 - DIN 14408  
 Production : S505 - Cleat - Cast  
 S505H - Cleat - Cast  
 Surface treatment : "M.R." (Mirror polished)

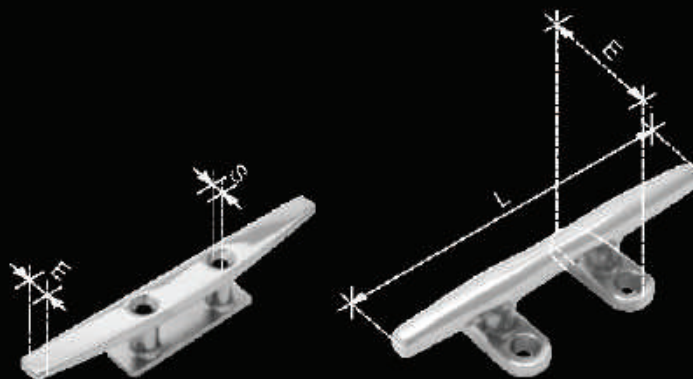
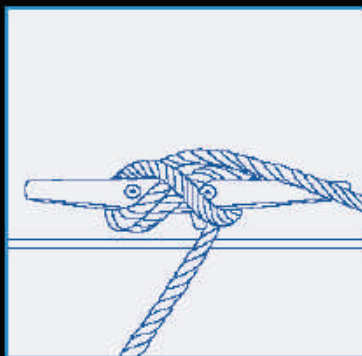
### Field of application

Trim line cleats are manufactured with highest precision in casting material to avoid any rust during sea application.

Trim line cleats - heavy type are manufactured with highest precision in casting material to avoid any rust during sea application.

Item no.	<b>S505</b>	SIZE	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6505-0004	4"	36.0	100	4.5	150
	6505-0005	5"	46.0	125	5.5	125
	6505-0006	6"	53.0	150	6.5	50
	6505-0008	8"	68.0	200	8.5	40
	6505-0010	10"	82.5	250	8.5	20
	6505-0012	12"	82.5	300	8.5	15

Item no.	<b>S505H</b>	SIZE	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6505-5060	6"	56	150	6	75
	6505-5007	7"	60	180	6	40



**S507**  
Blue water cleat

**S508**  
Low flat cleat

## S507, S508

### Technical Data

Casting material : A19316 - DIN 14408  
 Production : S507 - Cleat - Cast  
 S508 - Cleat - Cast  
 Surface treatment : "M.R." (Mirror polished)

### Field of application

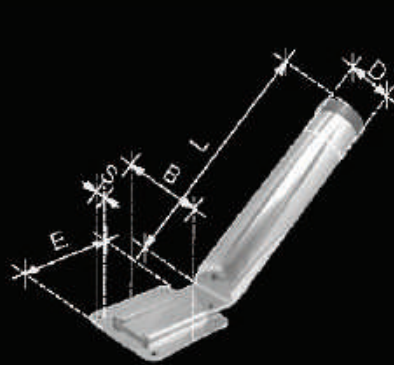
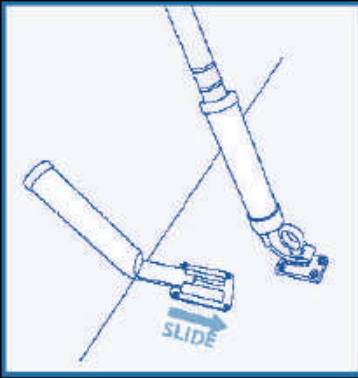
Blue water cleats are manufactured with highest precision in casting material to avoid any rust during sea application.

Low flat cleats are manufactured with highest precision in casting material to avoid any rust during sea application.

Item no.	<b>S507</b>	SIZE	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6507-0004	4"	8	100	4.5	250
	6507-0005	5"	9	125	5.5	140
	6507-0006	6"	12	150	6.5	100
	6507-0008	8"	15	200	8.5	60
	6507-0010	10"	16	250	8.5	40

Item no.	<b>S508</b>	SIZE	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6508-0004	4"	35	100	4.5	140
	6508-0005	5"	42	125	5.5	100
	6508-0006	6"	45	150	6.5	100
	6508-0008	8"	54	200	6.5	50
	6508-0010	10"	68	255	8.0	20
	6508-0012	12"	71	300	8.0	15
	6508-0015	15"	115	380	12.5	5





SFG216016  
Removable rod holder



SFG216018  
Deck mount rod holder

### SFG216016, SFG216018

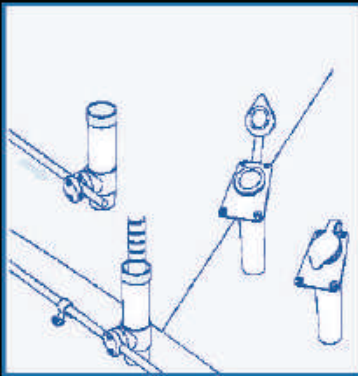
**Technical Data**

- Casting material : AISI304 - DIN 1.4308
- Forging material : AISI304 - DIN 1.4301
- Production : SFG216016 - Holder - Pipe  
Body - Forged
- SFG216018 - Holder - Pipe  
Body - Cast
- Surface treatment : "M.B." (Mirror polished)

Item no.	SFG216016	B	Ø D	E	L	S	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	
	4216-0160	95	50.8	100	220	7	4
Item no.	SFG216018	B	Ø D	E	L	S	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	
	4216-0180	56	51	90	234	6.7	6

**Field of application**

Removable rod holders are designed for easy assembly to any boat deck type for fishing rods. Deck mount rod holders are designed for assembly on boat deck with easy 45 degrees angle adjustment knob for fishing rods.



SFG216017  
Flush mount rod holder



SFG216019  
Rail mount rod holder

### SFG216017, SFG216019

**Technical Data**

- Casting material : AISI304 - DIN 1.4308
- Forging material : AISI304 - DIN 1.4301
- Production : SFG216017 - Holder - Pipe  
Body - Cast
- SFG216019 - Holder - Pipe  
Body - Cast
- Surface treatment : "M.B." (Mirror polished)

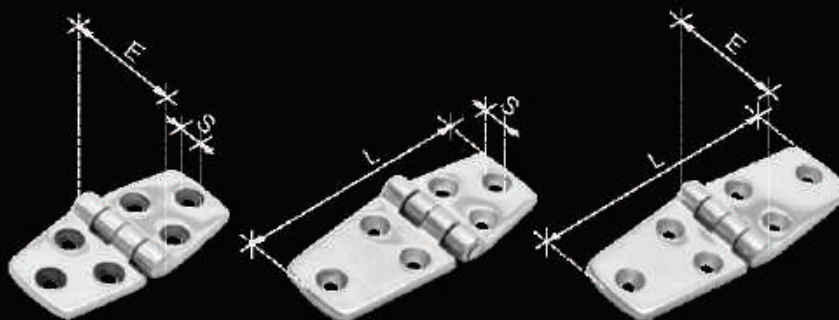
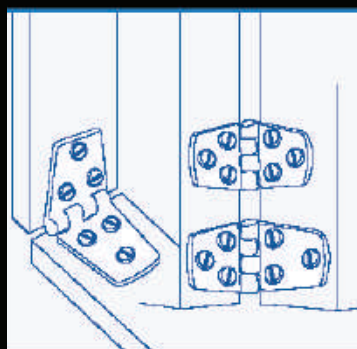
Item no.	SFG216017	Ø D	E	L	S	
Material	SS304	(mm)	(mm)	(mm)	(mm)	
	4216-0170	51	130	200	6.6	6
Item no.	SFG216019	Ø D	L			
Material	SS304	(mm)	(mm)			
	4216-0190	51	215			9

**Field of application**

Flush mount rod holders are designed for assembly with existing hole on boat deck for fishing rods. Rail mount rod holders are designed for assembly on boat deck with rails for fishing rods.



Rod holder (deck mount)



**S9222R-3"**  
Hinge (type 3)

**S9222R-3.5"**  
Hinge (type 3.5)

**S9222R-4"**  
Hinge (type 4)

-  **S9222R-3"**
-  **S9222R-3.5"**
-  **S9222R-4"**

**Technical Data**

Casting material : AISI 316 - DIN 1.4408  
 Production : S9222R-3" - Hinge - Cast  
 S9222R-3.5" - Hinge - Cast  
 S9222R-4" - Hinge - Cast  
 Surface treatment : "M.P." (Mirror polished)

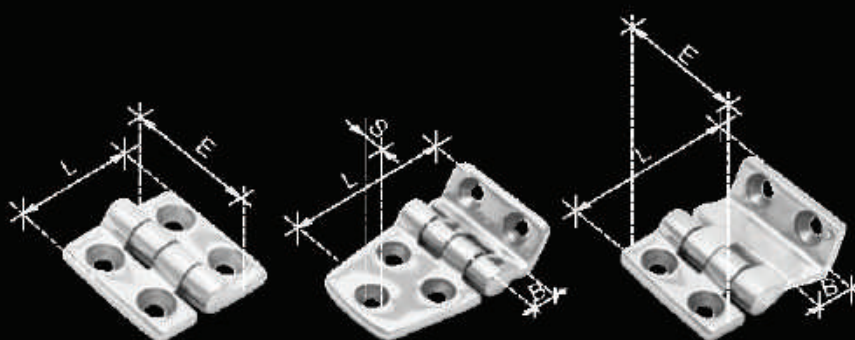
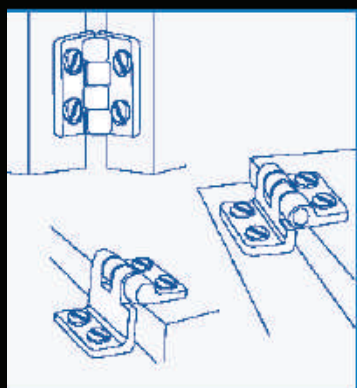
**Field of application**

Stainless hinges are elegantly designed with precision casting for a special solid rust-resistant look on boat decks.

Part No.	<b>S9222R-3"</b>	SIZE	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6922-2003	3"	38	76	5,5	250

Part No.	<b>S9222R-3.5"</b>	SIZE	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6922-2035	3.5"	38	90,5	5,5	250

Part No.	<b>S9222R-4"</b>	SIZE	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6922-2004	4"	38	105	5,5	200



**S9224**  
Hinge

**S9224WS**  
Angle hinge

**S9224WL**  
Long angle hinge



**S9224, S9224WS, S9224WL**

**Technical Data**

Casting material : AISI 316 - DIN 1.4408  
 Production : S9224 - Hinge - Cast  
 S9224WS - Hinge - Cast  
 S9224WL - Hinge - Cast  
 Surface treatment : "M.P." (Mirror polished)

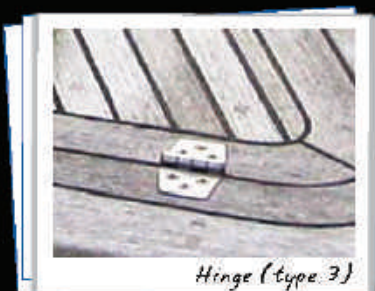
**Field of application**

Stainless hinges are elegantly designed with precision casting for a special solid rust-resistant look on boat decks.

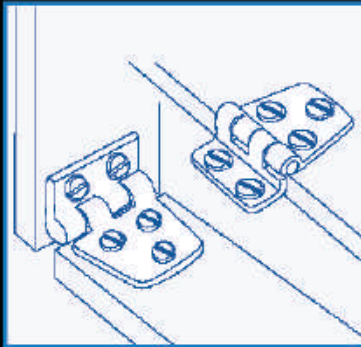
Part No.	<b>S9224</b>	SIZE	E	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	
	6922-4038	38	38	38	5,5	350

Part No.	<b>S9224WS</b>	SIZE	B	E	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
	6922-4138	38	9,5	38	38	5,5	350

Part No.	<b>S9224WL</b>	SIZE	B	E	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
	6922-4380	38	19	38	38	5,5	350







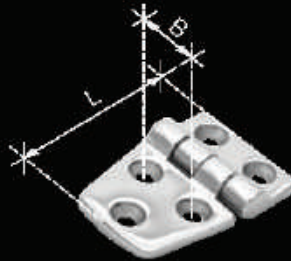
## S9223, S9223WS

### Technical Data

Casting material : AISI316 - DIN 1.4308  
 Production : S9223 - Angle - Stamped  
 S9223WS - Angle - Stamped  
 Surface treatment : "M.P." (Mirror polished)


### Field of application

Stainless hinges are elegantly designed with precision casting for a special solid and resistant look on boat decks.



 S9223 Hinge



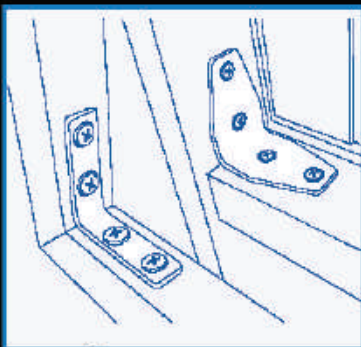
 S9223WS Angle hinge

Partno	S9223	SIZE	B	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	

6922-3057	57	19	57,0	5,5	200
6922-3071	71	19	71,5	5,5	250

Partno	S9223WS	SIZE	B	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	

6922-3157	57	19	57,0	5,5	300
6922-3171	71	19	71,5	5,5	300



## SF8340, SF8341

### Technical Data

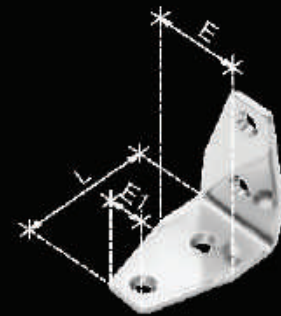
Casting material : AISI304 - DIN 1.4308  
 Stamping material : AISI304 - DIN 1.4301  
 Production : SF8340 - Angle - Stamped  
 SF8341 - Angle - Stamped  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Light angles and Heavy angles are designed for easy assembly onto two angled panels for maintaining the 90 degrees angle function. The heavy type profile provides extra support for the angled function.



 SF8340 Light angle



 SF8341 Heavy angle

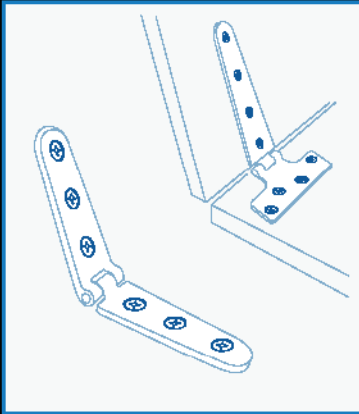
Partno	SF8340	SIZE	E	L	Ø S	
Material	SS304	(mm)	(mm)	(mm)	(mm)	

4834-0001	3*31*12	12	31	4,2	1,800
4834-0002	3*46*13	13	46	5,3	1,400
4834-0003	3*61*15	15	61	6,3	500

Partno	SF8341	SIZE	E	E1	L	
Material	SS304	(mm)	(mm)	(mm)	(mm)	

4834-1001	3*41*25	25	12,5	41	800
4834-1002	3*56*35	35	17,5	56	400
4834-1003	4*80*50	50	25,0	80	150





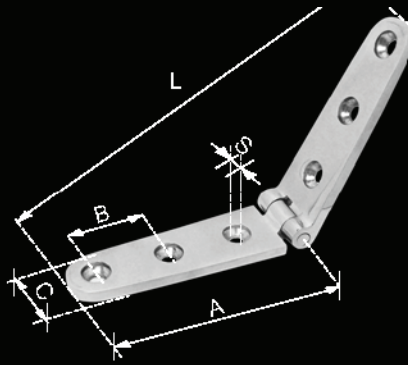
## S9225/HP, S9226/HP


### Technical Data

Casting material : AISI316 - DIN 1.4408  
Surface treatment : "M.P." (Mirror polished)

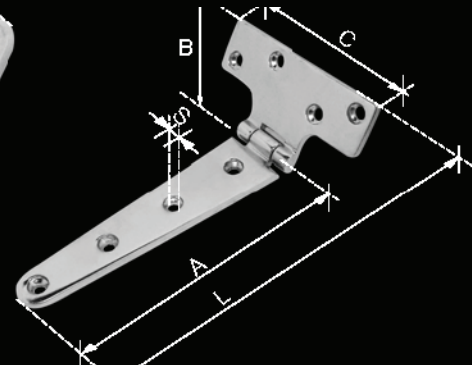
### Field of application


Stainless steel hinges are elegantly designed for marine applications where a special corrosion resistance of the boat deck is required.



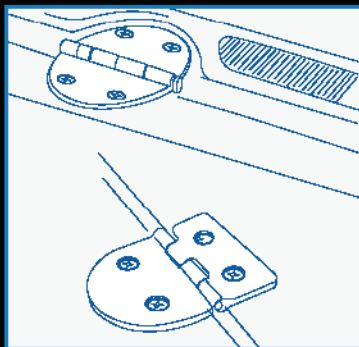
 **S9225/HP**  
Stainless steel hinge (type L)

Item no.	<b>S9225/HP</b>	SIZE	A	C	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
	6922-5274	4	80	27	160	5.5	200



 **S9226/HP**  
Stainless steel hinge (type T)

Item no.	<b>S9226/HP</b>	SIZE	A	C	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
	6922-6985	5	146.5	98	197	6	100



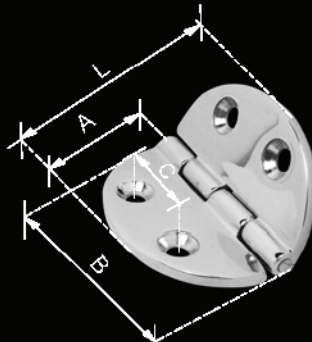
## S9227/HP, S9228/HP

### Technical Data

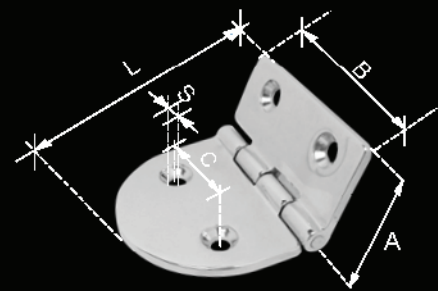
Casting material : AISI316 - DIN 1.4408  
Surface treatment : "M.P." (Mirror polished)


### Field of application

Stainless steel hinges are elegantly designed for marine applications where a special corrosion resistance of the boat deck is required.



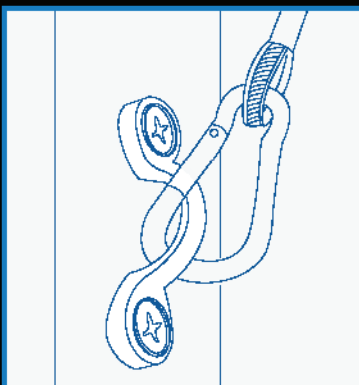
 **S9227/HP**  
Stainless steel hinge (type O)



 **S9228/HP**  
Stainless steel hinge (type U)

Item no.	<b>S9227/HP</b>	SIZE	A	B	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
	6922-7644	4	32	64	64	6.3	250

Item no.	<b>S9228/HP</b>	SIZE	A	B	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
	6922-8644	4	31.5	64	81	6.3	200



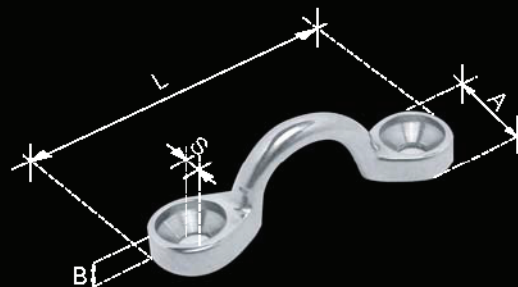
## S322C


### Technical Data


Casting material : AISI316 - DIN 1.4408  
Surface treatment : "E.P." (Electro polished)

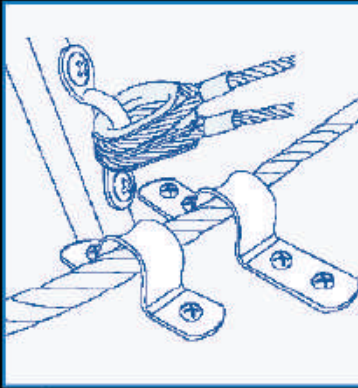
### Field of application

Wire eye straps-heavy type are elegantly designed for marine applications where a special corrosion resistance of the boat deck is required.



 **S322C**  
Wire eye strap-heavy type

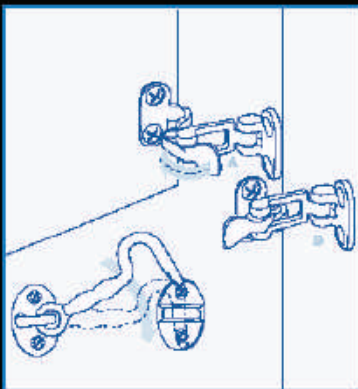
Item no.	<b>S322C</b>	SIZE	A	B	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	
	6322-0548	5	12.5	4.5	48	5	2,000



**SF322, SF323, SF324**

**Technical Data**  
 Casting material : AISI304 - DIN 14308  
 Stamping material : AISI304 - DIN 14301  
 Production : SF322 - Strip - Stamped  
 : SF323 - Strip - Stamped  
 : SF324 - Strip - Stamped  
 Surface treatment : "E.P." (Electro polished)

**Field of application**  
 Eye straps are designed for easy assembly onto a flat panel. Eye strap are used for attachment of different assembled fittings.



**S9210, S9211**

**Technical Data**  
 Casting material : AISI316 - DIN 14408  
 Production : S9210 - Body - Cast  
 : S9211 - Body - Cast  
 Surface treatment : "MLP" (Mirror polished)


**Field of application**  
 Door hooks and Cover latches are designed for an application where a simple closing of latch is required.





**SF322**  
Wire eye strap

**SF323**  
Eye strap - two hole type

**SF324**  
Eye strap - four hole type

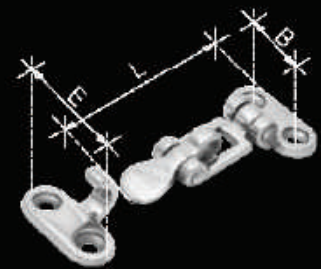
Item no.	SF322	SIZE	E	H	L	Ø S	Strap	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)		
	4322-0004	4	7,5	14	42	3,65	Stamped	5,000
	4322-0005	5	8,5	18	50	4,25	Stamped	2,000
	4322-0006	6	10,5	22	60	5,00	Stamped	1,200
	4322-0008	8	13,5	24	64	6,00	Stamped	900
	4322-0010	10	15,0	26	67	5,00	Cast	600

Item no.	SF323	SIZE	E	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	
	6323-0010	10	11	42	4,2	3,500
	6323-0013	13	11	45	4,2	3,000
	6323-0016	16	11	48	4,2	2,000

Item no.	SF324	SIZE	E	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	
	6324-0010	10	11	56	4,2	1,600
	6324-0013	13	11	69	4,2	1,600
	6324-0016	16	11	72	4,2	1,400



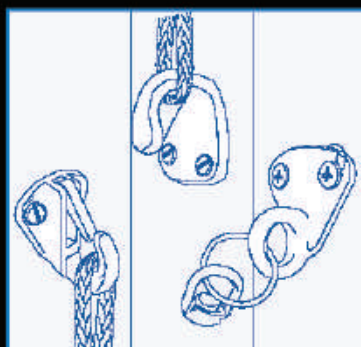
**S9210**  
Door hook



**S9211**  
Cover latch

Item no.	S9210	SIZE	B	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6921-0013	3"	24	38	81	4	150
	6921-0004	4"	24	38	105	4	125

Item no.	S9211	SIZE	B	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6921-1303	3"	22	38	76	5	250



## S5373, S5341, S5359

### Technical Data

Casting material : AISI 316 - DIN 1.4408  
 Production : S5373 - Hook - Cast  
 S5341 - Hook - Cast  
 S5359 - Hook - Cast

Surface treatment : "M.P." (Mirror polished)  
 "E.P." (Electro polished)

### Field of application

Awning hooks and Fender hooks are designed for easy screw assembly onto boat deck for extra support to existing loose fittings.  
 Spring fender hooks with spring lever are designed for easy screw assembly onto boat deck for extra support to existing loose fittings.



**M** S5373  
Awning hook

**M** S5341  
Fender hook

**M** S5359  
Spring fender hook

Item no	S5373	SIZE	B	E	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	

6537-3019 (E.P.) 19 16 27 21 3,7 1,200

6537-3119 (M.P.) 19 16 27 21 3,7 1,200

Item no	S5341	SIZE	B	E	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	

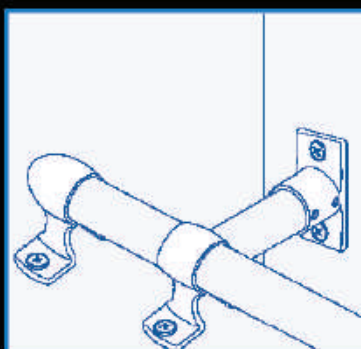
6534-1009 (E.P.) 9 18 30 18 4,6 1,200

6534-1109 (M.P.) 9 18 30 18 4,6 1,200

Item no	S5359	SIZE	B	E	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	

6535-9005 (E.P.) 5 10 34 37 4,6 600

6535-9010 (E.P.) 10 10 34 40 4,3 500



## S391, S392, S393

### Technical Data

Casting material : AISI 316 - DIN 1.4408  
 Production : S391 - Cap - Cast  
 S392 - Cap - Cast  
 S393 - Cap - Cast

Surface treatment : "M.P." (Mirror polished)

### Field of application

Stainless rail fittings are elegantly designed with precision casting for a special solid rust resistant look on boat canopy assemblies.



**S** S391  
Rail fitting (top side cap)

**S** S392  
Rail fitting (central cap)

**S** S393  
Rail fitting (deck cap)

Item no	S391	SIZE	Ø C	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	

6391-0100 1" 26 59,5 73 5,2 70

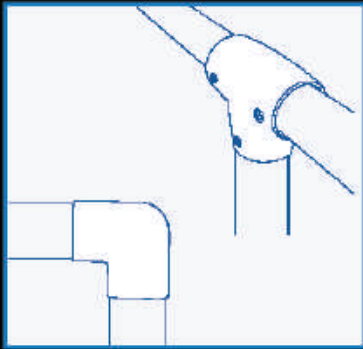
Item no	S392	SIZE	Ø C	H	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	

6392-0001 1" 26 59,5 73 5,2 70

Item no	S393	SIZE	Ø C	H	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	

6393-0001 1" 26 35 73 6,4 175





## S394, S395

### Technical Data

Casting material : AISI 316 - DIN 1.4408  
 Production : S394 - Cap - Cast  
 S395 - Cap - Cast  
 Surface treatment : "M.P." (Mirror polished)

### Field of application

Stainless rail fittings are elegantly designed with precision casting for a special solid rust resistant look on boat canopy assemblies.



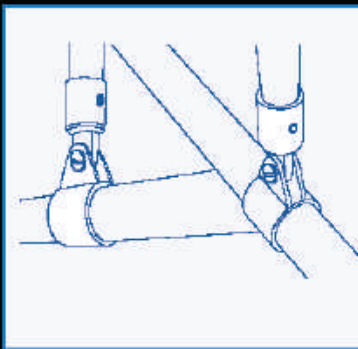
**S394**  
Rail fitting (elbow cap)



**S395**  
Rail fitting (T-cap)

Part No	<b>S394</b>	SIZE	Ø C	Ø E	L	Weight
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6394-0001	1"	26	33	52	150

Part No	<b>S395</b>	SIZE	B	Ø C	L	Weight
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6395-0001	1"	52	26	58	80



## S31601, S31602

### Technical Data

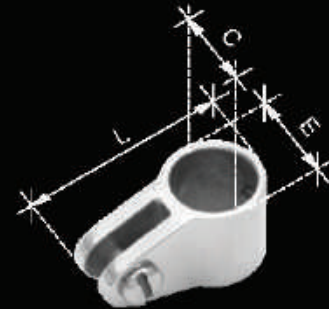
Casting material : AISI 316 - DIN 1.4408  
 Production : S31601 - Cap - Cast  
 S31602 - Cap - Cast  
 Surface treatment : "M.P." (Mirror polished)  
 "E.P." (Electro polished)

### Field of application

Stainless rail fittings are elegantly designed with precision casting for a special solid rust resistant look on boat canopy assemblies.



**S31601**  
Rail fitting (top cap)

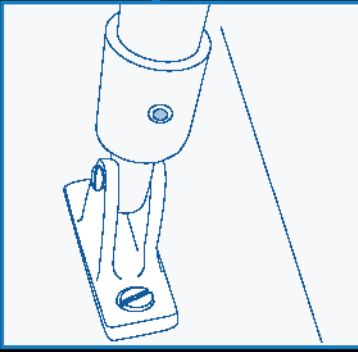


**S31602**  
Rail fitting (top slide cap)

Part No	<b>S31601</b>	SIZE	Ø C	L	Ø S	Weight
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6316-0101(E.P.)	1"	26.0	60	7	200
	6316-0102(E.P.)	3/4"	19.4	55	7	250
	6316-0103(E.P.)	7/8"	22.6	59	7	250
	6316-0104(M.P.)	1"	26.0	60	7	200
	6316-0105(M.P.)	3/4"	19.4	55	7	250
	6316-0106(M.P.)	7/8"	22.6	59	7	200
	6316-0133(M.P.)	1.3/16"	30.4	62	8	150

Part No	<b>S31602</b>	SIZE	Ø C	L	Ø S	Weight
Material	SS316	(inch)	(mm)	(mm)	(mm)	
	6316-0201(E.P.)	1"	26.0	33.0	57.0	200
	6316-0202(E.P.)	3/4"	19.4	25.2	45.0	250
	6316-0203(E.P.)	7/8"	22.7	28.0	53.5	250
	6316-0204(M.P.)	1"	26.0	33.0	57.0	150
	6316-0205(M.P.)	3/4"	19.4	25.2	45.0	250
	6316-0206(M.P.)	7/8"	22.7	28.0	53.5	200
	6316-0233(M.P.)	1.3/16"	30.4	36.0	60.0	150





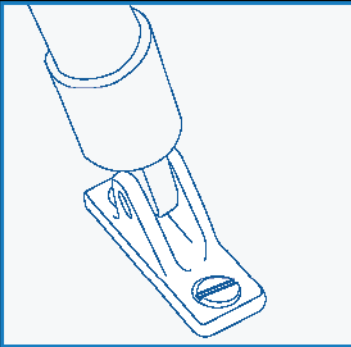
### S31614, S31614A

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S31614 - Hinge - Cast  
 S31614A - Hinge - Cast  
 Surface treatment : "E.P." (Electro polished)/  
 "M.P." (Mirror polished)

#### Field of application

Stainless rail fittings are elegantly designed with precision casting for a special solid rust-resistant look on boat canopy assemblies.



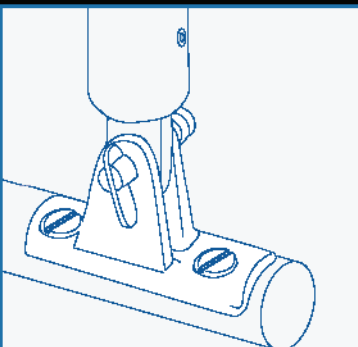
### S31606, S31606A

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S31606 - Hinge - Cast  
 S31606A - Hinge - Cast  
 Surface treatment : "E.P." (Electro polished)/  
 "M.P." (Mirror polished)

#### Field of application

Stainless rail fittings are elegantly designed with precision casting for a special solid rust-resistant look on boat canopy assemblies.



### S316061, S316061A

#### Technical Data

Casting material : AISI316 - DIN 1.4408  
 Production : S316061 - Hinge - Cast  
 S316061A - Hinge - Cast  
 Surface treatment : "E.P." (Electro polished)/  
 "M.P." (Mirror polished)

#### Field of application

Stainless rail fittings are elegantly designed with precision casting for a special solid rust-resistant look on boat canopy assemblies.



**S31614**  
Deck hinge

Item no.	S31614	SIZE	B	L	Ø S	T	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6316-1478 (E.P)	7/8"	7	63	5	6	250
	6316-1403 (M.P)	7/8"	7	63	5	6	200



**S31614A**  
Deck hinge (mount with removable pin)

Item no.	S31614A	SIZE	B	L	Ø S	T	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6316-1401 (E.P)	7/8"	7	63	5	6	200
	6316-1402 (M.P)	7/8"	7	63	5	6	200



**S31606**  
Deck hinge  
(angle side mount)

Item no.	S31606	SIZE	B	L	Ø S	T	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6316-0678 (E.P)	7/8"	8	56	5.2	4.75	350
	6316-0614 (M.P)	7/8"	8	56	5.2	4.75	200



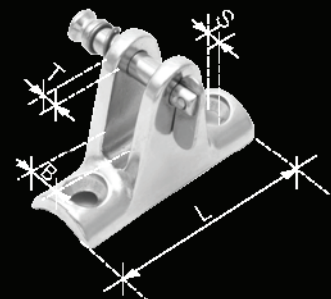
**S31606A**  
Deck hinge  
(angle side mount with removable pin)

Item no.	S31606A	SIZE	B	L	Ø S	T	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6316-0687 (E.P)	7/8"	8	56	5.2	4.75	n/a
	6316-0613 (M.P)	7/8"	8	56	5.2	4.75	200



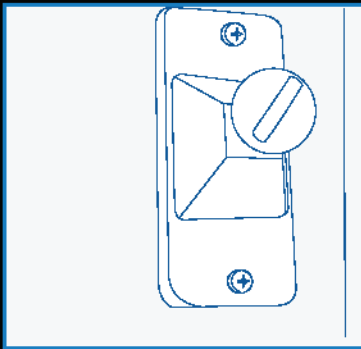
**S316061**  
Deck hinge (rail mount)

Item no.	S316061	SIZE	B	L	Ø S	T	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6316-0611 (E.P)	7/8"	8	56	6	4.5	200
	6316-0612 (M.P)	7/8"	8	56	6	4.5	200



**S316061A**  
Deck hinge  
(rail mount with removable pin)

Item no.	S316061A	SIZE	B	L	Ø S	T	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6316-0615 (E.P)	7/8"	8	56	6	4.5	200
	6316-0617 (M.P)	7/8"	8	56	6	4.5	200



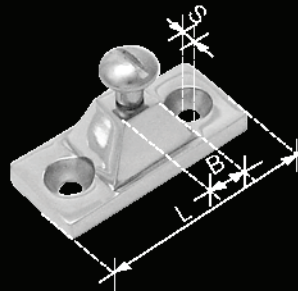
## S31612, S31612A

### Technical Data

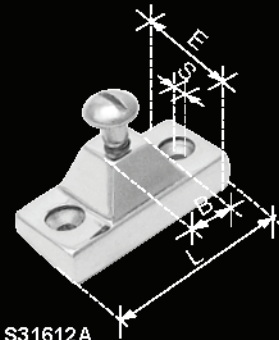
Casting material : AISI316 - DIN 1.4408  
 Production : S31612 - Hinge - Cast  
 S31612A - Hinge - Cast  
 Surface treatment : "E.P." (Electro polished)  
 "M.P." (Mirror polished)

### Field of application

Stainless rail fittings are elegantly designed with precision casting for a special solid rust resistant look on boat canopy assemblies.



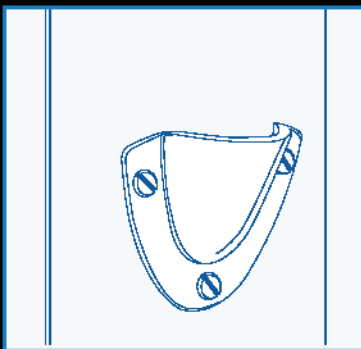
**S31612**  
Deck hinge (side mount)



**S31612A**  
Deck hinge (angled side mount)

Item no.	S31612	SIZE	B	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6316-1278 (E.P)	7/8"	10	22.5	50	5.4	500
	6316-1203 (M.P)	7/8"	10	22.5	50	5.4	250

Item no.	S31612A	SIZE	B	E	L	Ø S	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	
	6316-1201 (E.P)	7/8"	11	22.5	50	5.4	300
	6316-1202 (M.P)	7/8"	11	22.5	50	5.4	250



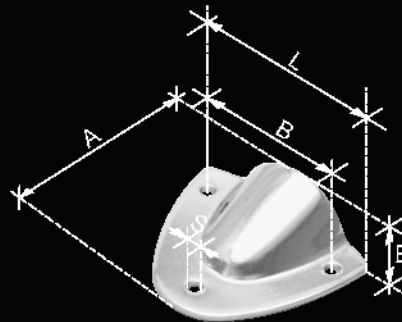
## SF8345

### Technical Data

Forging material : AISI316 - DIN 1.4401  
 Production : SF8345 - Vent - Forged  
 Surface treatment : "E.P." (Electro polished)

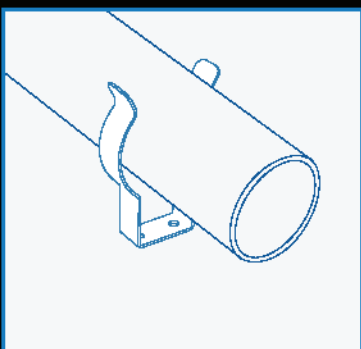
### Field of application

Vents are specially designed to cover dust or water from the exhaust port of a motor boat.



**SF8345**  
Vent

Item no.	SF8345	SIZE	A	B	E	L	Ø S	
Material	SS316	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
	6834-5001	12*40*47	40	36	12	47.0	3.5	800
	6834-5002	16*55*62.5	55	50	16	62.5	4.5	400



## SF3272

### Technical Data

Forging material : AISI304 - DIN 1.4301  
 Production : SF3272 - Strap - Forged  
 Surface treatment : "E.P." (Electro polished)

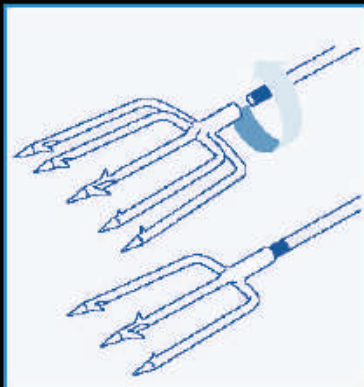
### Field of application

Tube straps are specially designed for extra support to tubes on boat decks.



**SF3272**  
Tube strap

Item no.	SF3272	SIZE	B	E	L	T	Ø S	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
	4327-2050	50	20	33	85	1.5	4.2	250



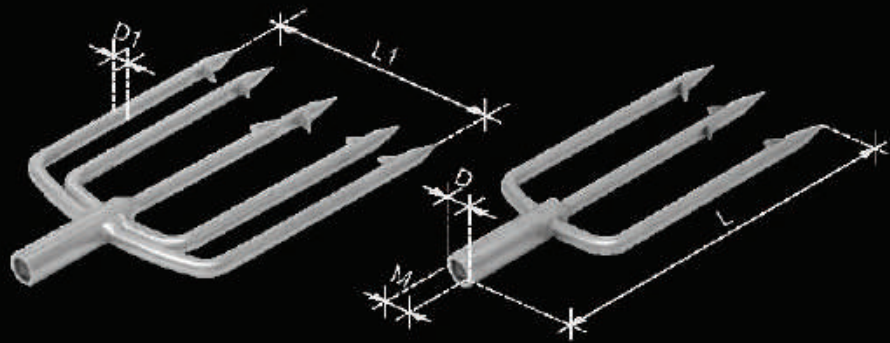
**SFHA/01, SFHA/03**

**Technical Data**

Forging material : AISI304 - DIN 1.4301  
 Production : SFHA/01 - Hook - Forged  
 SFHA/03 - Hook - Forged  
 Surface treatment : "E.P." (Electro polished)

**Field of application**

Fishing spear hooks are specially designed for assembly on to spears for fishing predon. All joints are TIG argon welded.

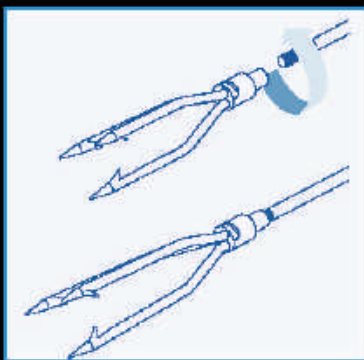


**SFHA/01**  
Fishing spear hook

Forma	<b>SFHA/01</b>	SIZE	ØD	ØD1	L	L1	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4000-0048	5*128	10	5	128	78	M6*1.0	150

**SFHA/03**  
Fishing spear hook

Forma	<b>SFHA/03</b>	SIZE	ØD	ØD1	L	L1	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4000-3125	4.75*125	10	5	128	53	M6*1.0	250



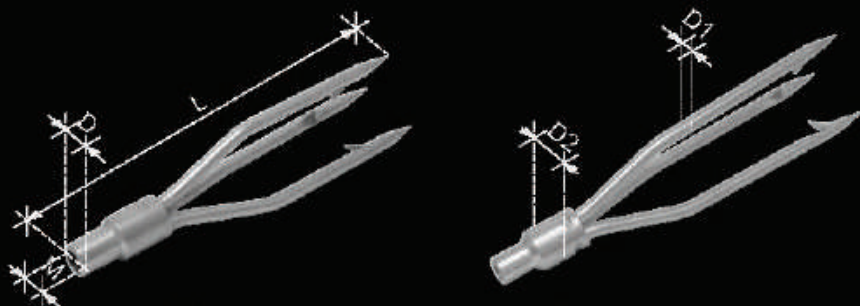
**SFHA/07, SFHA/08**

**Technical Data**


Forging material : AISI304 - DIN 1.4301  
 Production : SFHA/07 - Hook - Forged  
 SFHA/08 - Hook - Forged  
 Surface treatment : "E.P." (Electro polished)

**Field of application**

Fishing spear hooks are specially designed for assembly on to spears for fishing predon. All joints are TIG argon welded.



**SFHA/07**  
Fishing spear hook

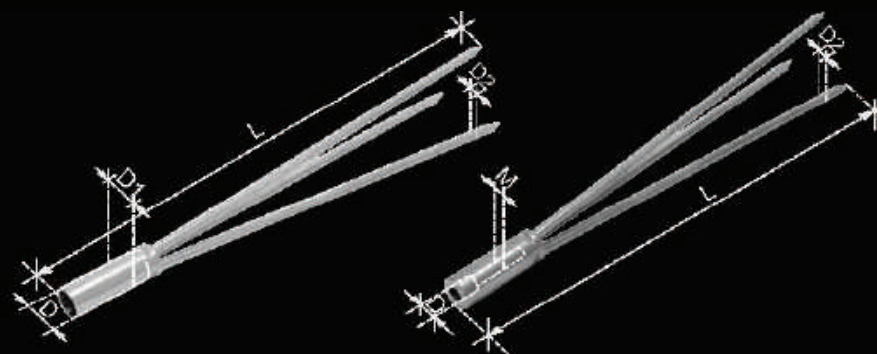
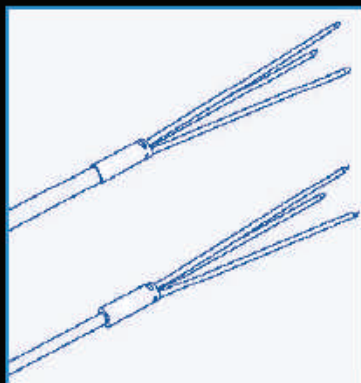
Forma	<b>SFHA/07</b>	SIZE	ØD	ØD1	ØD2	L	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4000-7110	4*110	10	4	12	10	M6*1.0	350


**SFHA/08**  
Fishing spear hook


Forma	<b>SFHA/08</b>	SIZE	ØD	ØD1	ØD2	L	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
	4000-8515	5*150	10	5	15	150	M6*1.0	175







 **SFHA/11**  
Fishing spear hook

 **SFHA/12**  
Fishing spear hook

## SFHA/11, SFHA/12


### Technical Data

Forging material : AISI304 - DIN 1.4301  
 Production : SFHA/11 - Hook - Forged  
 SFHA/12 - Hook - Forged  
 Surface treatment : "E.P." (Electro polished)


### Field of application

Fishing spear hooks are specially designed for assembly onto spears for fishing precision. All joints are TIG argon welded.

Referto	<b>SFHA/11</b>	SIZE	Ø D	Ø D1	Ø D2	L	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	
Order ref.	4000-11112	12.7*28	12.7	15	5	280	60

Referto	<b>SFHA/12</b>	SIZE	Ø D	Ø D1	Ø D2	L	M	
Material	SS304	(mm)	(mm)	(mm)	(mm)	(mm)	(thread)	
Order ref.	4000-12224	7.5*24	7.5	15	5	280	M6	60



 **SF3900**  
Bar spring


## SF3900

### Technical Data

Forging material : AISI304 - DIN 1.4301  
 AISI316 - DIN 1.4401  
 (Bar: AISI316, Spring: AISI304, Ball: AISI204)  
 Surface treatment : "E.P." (Electro polished)

### Field of application

Bar springs are designed for an easy loading and preventing the loosening of ball bullet on the pin.

Referto	<b>SF3900</b>	SIZE	Ø D	Ø D1	Ø D2	L	
Material	SS316	(inch)	(mm)	(mm)	(mm)	(mm)	

Order ref.	6390-0316	3/16"*1/2"	1.5	5.00	18	14.5	4,000
	6390-0147	1/4"*7/8"	2.0	6.35	25	21.3	2,500
	6390-0141	1/4"*1 5/16"	2.0	6.35	25	35.3	2,300
	6390-0142	1/4"*2 1/2"	2.0	6.35	25	65.1	1,200
	6390-0516	5/16"*1 1/2"	2.5	8.00	30	40.6	1,200



**Specifications**

The manufacturer is constantly testing and improving the performance of products, thus specifications are subject to change without notice. For the latest information please contact your local distributor.

**General**

For the purpose of these terms and conditions of sale, Structural Dynamics Co., Ltd. (Strudyna) should be referred to as "Manufacturer". Any related companies and representatives of Strudyna is referred to as a "Local distributor". Any Client purchasing Structural Dynamic items shall be referred to as the "Buyer". Products described and presented in this catalog shall be referred to as the "goods". These general terms and conditions of sale will apply to all sales of Structural Dynamic items described in this catalog and serves as a binding contract and agreement between manufacturer, local distributor and buyer.

**Title and Risk**

The local distributor shall hold the title and proprietary ownership of the goods until 100% of payment to the goods have been paid by the buyer to the local distributor. However unless prior written consent is agreed, the risk of damage to the goods shall be passed to the buyer upon the receipt of the goods by the buyer.

**Cancellation**

Goods purchased and confirmed by buyer may not be subject to cancellation, unless a prior written consent is given by the manufacturer or local distributor to the buyer.

**Force majeure**

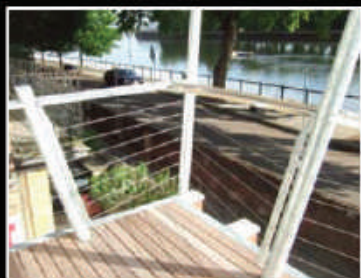
In the event of unpredictable natural or political cause beyond the manufacturer's and local distributor's control such as but not limited to: War, Rebellion, Piracy, Civil Commotion, Political unrest, Strike or industrial dispute, fire, earthquake, flooding or draught or bad weather, the unavailability of materials or delay delivery of suppliers, the inability to secure labour force or by any other cause whatsoever beyond the Manufacturer's and Local distributor's control, the manufacture and local distributor shall notify promptly to the buyer the cause of force majeure. The manufacture and local distributor shall have the right to cancel the contract to deliver so long as the force majeure shall continue.

**Warranty**

The products listed in this catalog are supplied to the buyer with a guarantee of being free from defective craftsmanship and materials at the time of shipment. Shall to buyer be dissatisfied with the product, a written notice must be sent to local distributor within 14 days from receipt of goods and subject to replacement or cancellation of order by choice of local distributor and manufacture. The manufacture warrants that in normal usage and with proper maintenance, goods will perform under its specifications for a period of 5 years. Any goods which prove to be defective under normal use will be repaired or replaced at the manufacturer's option. The manufacture and local distributor accept no responsibility if the goods purchased from this catalog are used in applications where their safe working load listed in this catalog is exceeded or in cases where goods are improperly installed. The manufacture and local supplier make no representations for suitability to a particular design application setting. All good supplied in this catalog carry a limited lifetime warranty from the manufacture.

**Price conditions**

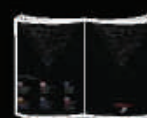
Prices quoted by local distributor to buyer shall remain unchanged for the duration of 14 days unless quantities, packaging instructions, delivery destinations or any contract details are changed. Unless further stated in order confirmation, prices are ex-local distributor premises. Should a delivery destination be reached by local distributor and buyer, the local distributor is entitled to choose any means of transport the local distributor sees it fit.



### SLIMFIX V 1.0 SERIES

Slimfix started with the ideal of redesigning a fitting that is strictly architectural for purely balustrade use. As old cigar and frame types tumbuckles are bulky and more industrial design than decorative, and thimbles and wire clips were unpleasant looking, Slimfix was conceived to overcome these design neglects.

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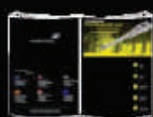


[SLIMFIX ASSEMBLY](#)

### Pa-ADJUSTER V 4.0 SERIES

The development of the Pa-adjuster is again an excellent example of adhering to the SAOD theory. During the development for cable truss system facade, we encounter the need for a better profile than any marine tumbuckles had provided thus far.

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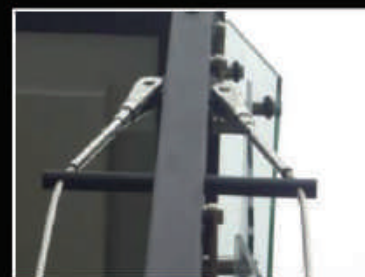
[Pa-ADJUSTER](#)



[Pa-SET](#)



[TOOLS](#)



### HYBRID TENSIONER V 1.0 SERIES

The Hybrid Tensioner started with the idea of having a short tensioner with smooth lines for decorative purposes but also robust enough to be installed in public places.

As the name "Hybrid" suggests, the main design feature in the Hybrid tensioner is its multi function ability to accommodate three of the most popular systems in decorative design; Swage, Rod and Slimfix systems.

[more >>](#)



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[HYBRID SWAGE](#)



[HYBRID SET](#)



[ACCESSORY](#)

### AM-ADJUSTER V 2.0 SERIES

The AM adjuster started with its root from the most robust environment of the marine in mind. From the expected calm sea to the worst unexpected storm, the AM adjuster was designed to perform in environments of continues pounding from high winds, seawaters, seasonal rains, and thunders.

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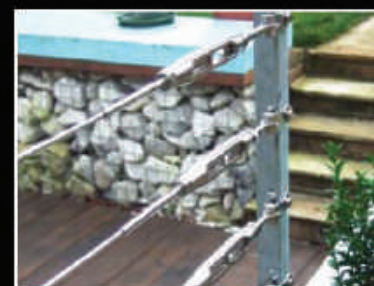
[FORK SWAGE TERMINAL](#)



[AM ASSEMBLY](#)



[ACCESSORY](#)



### SPYDER V 1.0 SERIES

M-facade (or Metal frame Facade) is the first of five facade series scheduled for launching with Strudyna, it is the simplest construction of geometric design and load distribution.

The three major components in an M-facade setup are: "MIF-connectors" which are connected directly onto Metal frame trusses, "spyder" clamps which connect between the MIF-connectors and a rotule, and finally the rotules which hold the glass.

[more >>](#)





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EYE BOLTS & EYE NUTS

WIRE ROPE CLIPS



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